

JOURNAL

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AMERICAN VETERINARY MEDICAL ASSOCIATION

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89th Annual Meeting, Atlantic City, June 23-26, 1952

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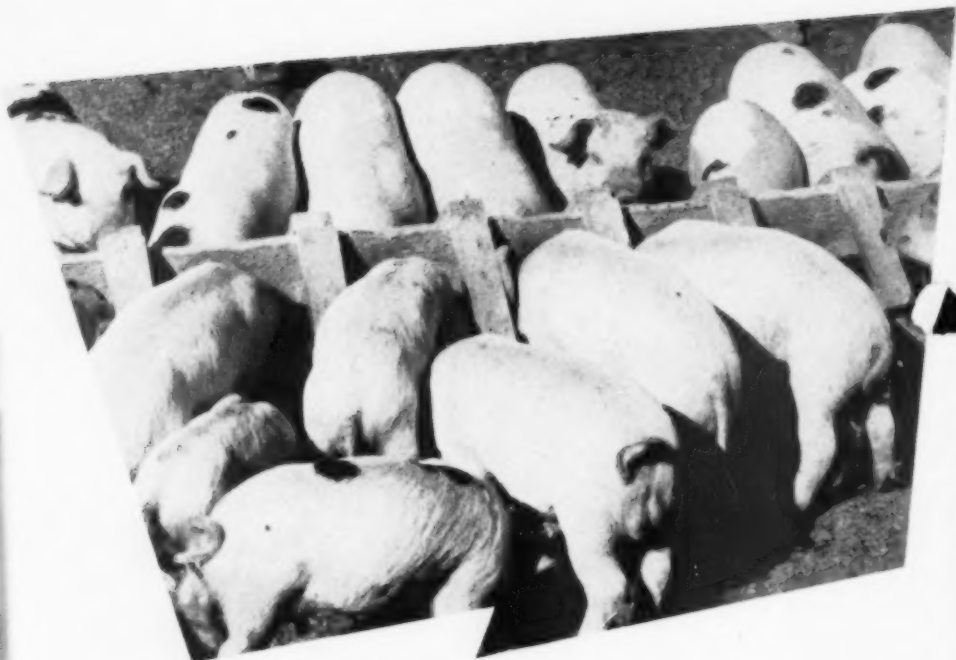
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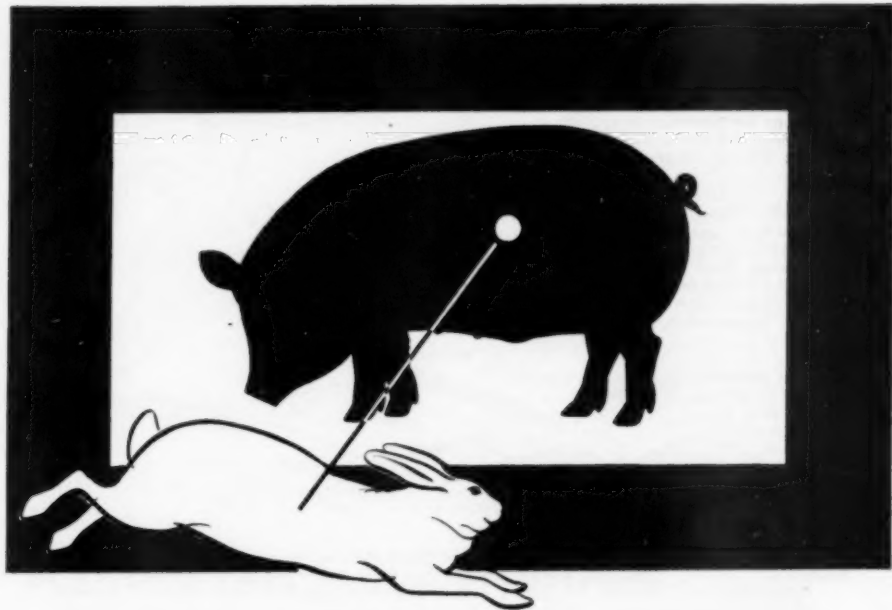
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AVMA ☆ Report

Veterinary Medical Activities

♦ Dr. W. A. Hagan, Brig. Gen. J. A. McCallam, and Dr. J. G. Hardenbergh, who comprise the executive subcommittee of the U. S. Committee on the Fifteenth International Veterinary Congress, met at Association headquarters on March 24-25, 1952, to select nominees for the Congress program and to consider proposals for the European tour that will be organized in connection with the Stockholm Congress in August, 1953.

★ ★ ★

♦ The Council on Education held its annual meeting at the AVMA office on March 29-30, 1952. On the preceding day, members of the Council's executive committee attended a joint conference with representatives of the Council on Education of the A.M.A., A.D.A., and Association of American Medical Colleges.

★ ★ ★

♦ Executive Secretary J. G. Hardenbergh inspected convention facilities in Seattle, Wash., March 17-18, in connection with the invitation to hold the 1954 convention there. On the same trip, he visited the College of Veterinary Medicine at the State College of Washington, Pullman, and spoke to the student chapter. On April 1, he spoke at the Career Conference sponsored by the University of Illinois, Urbana, and also addressed the student body at the College of Veterinary Medicine.

★ ★ ★

♦ Assistant Executive Secretary C. D. Van Houweling attended a conference of state livestock sanitary officials in Washington, D. C., on March 27. It was called by the U. S. Bureau of Animal Industry to discuss the rather widespread outbreaks of anthrax that have been reported in several states.

★ ★ ★

♦ Dr. D. K. Detweiler of Philadelphia represented the Association's Subcommittee on Veterinary Items at a meeting of the National Formulary Committee in Washington on March 28, 1952.

★ ★ ★

♦ The Board of Governors (Drs. Brock, Wells, and Boyd) were in session at Association headquarters April 26-27, 1952. The Committee on Budget held a meeting at the same time.

★ ★ ★

♦ Ballots for election of members of the Executive Board for districts I (Canada) and IX (New England States and New York) were mailed to members in those districts on April 1, 1952. The polls will close on May 31.

★ ★ ★

♦ The Fellowship Committee of the Research Council held its regular spring meeting at the AVMA office on April 28, for the purpose of screening applicants for fellowships during the academic year 1952-1953.

★ ★ ★

♦ Assistant Executive Secretary Van Houweling spoke to the student chapters at the University of Georgia, Athens, and Alabama Polytechnic Institute, Auburn, April 16 and 17, respectively. At Tuskegee Institute, Tuskegee Institute, Ala., on April 18, he was the speaker at their annual banquet honoring seniors, and presented the charter to their chapter.

★ ★ ★

♦ Mr. Russell G. Rongren, B. Sc., has taken over the work of Mr. J. J. Shaffer, resigned, in the headquarters office. See news item on p. 324 of this issue.

★ ★ ★

♦ Due to AVMA efforts, legislation increasing the grade and pay of veterinarians in the Veterinary Corps has been introduced in the House of Representatives and Senate. For details, see p. 320 of this issue.

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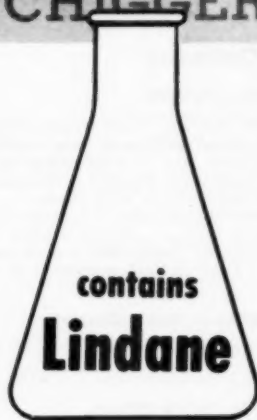
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DOG RESEARCH NEWS

Teething

The permanent incisors (front teeth) usually come in at about 5 to 6 months of age.

Diseases which involve a high fever or which alter the metabolic rate, such as distemper, may permanently disfigure the teeth with rings or pocks. Vaccinations with live viruses to produce a mild form of such a disease should be deferred until the permanent teeth are erupted.



Frequent inspection of the puppy's teeth enables the owner to detect troublesome teeth problems in the early stages.

Rickets from calcium and vitamin D deficiency, or excessive fluorine may also result in defective teeth. In this connection, it may be noted that a diet which provides vitamins and minerals in adequate quantities is of primary importance to the growing dog in order that he may develop sound bones and teeth.

One sure method open to the dog owner of providing such elements is to feed a reputable commercial dog food like Friskies Meal. Friskies has been tested on generations of dogs of all sizes and types. Since

it contains every element dogs are known to need for complete nourishment, it provides the dog owner with a convenient, inexpensive diet for his dog which will go a long way toward promoting a strong, sturdy body and sound teeth.

Eye Injuries

Eye injuries frequently result from toenail trauma, particularly if the dog has dew claws. Another condition, to which heavy faced dogs are more susceptible, is entropion, which is really a turned under eye lid.

Excessive lacrimation and some pus discharge may be associated with specific infectious diseases, though they may be caused by faulty housing or exposure to inclement weather.



Prompt attention to any eye injury, no matter how slight, safeguards the dog's vision.

In all eye injuries, the eye should be flushed out with a saturated solution of boric acid. If prompt recovery does not take place, the local veterinarian should be consulted at once.

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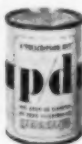
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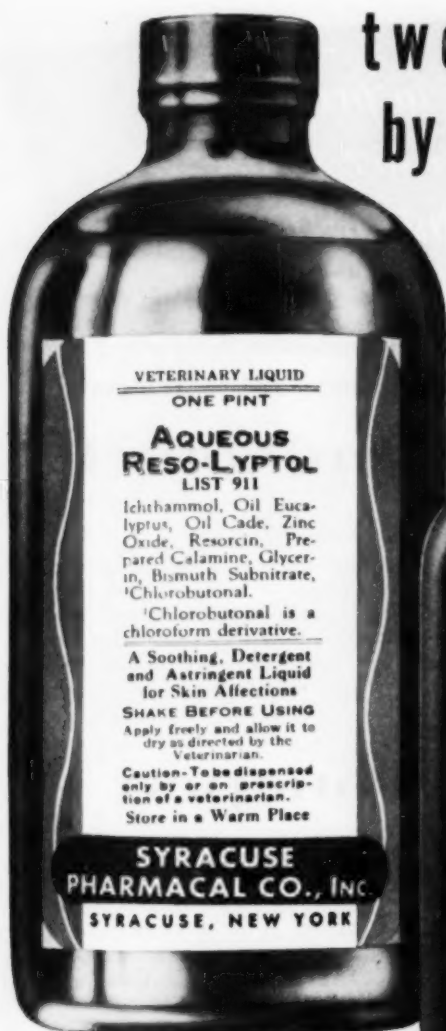
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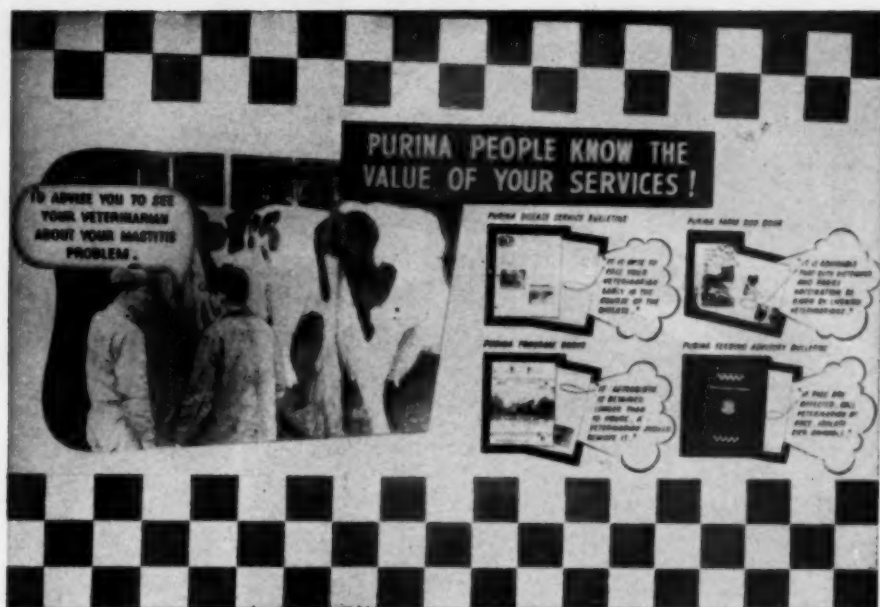


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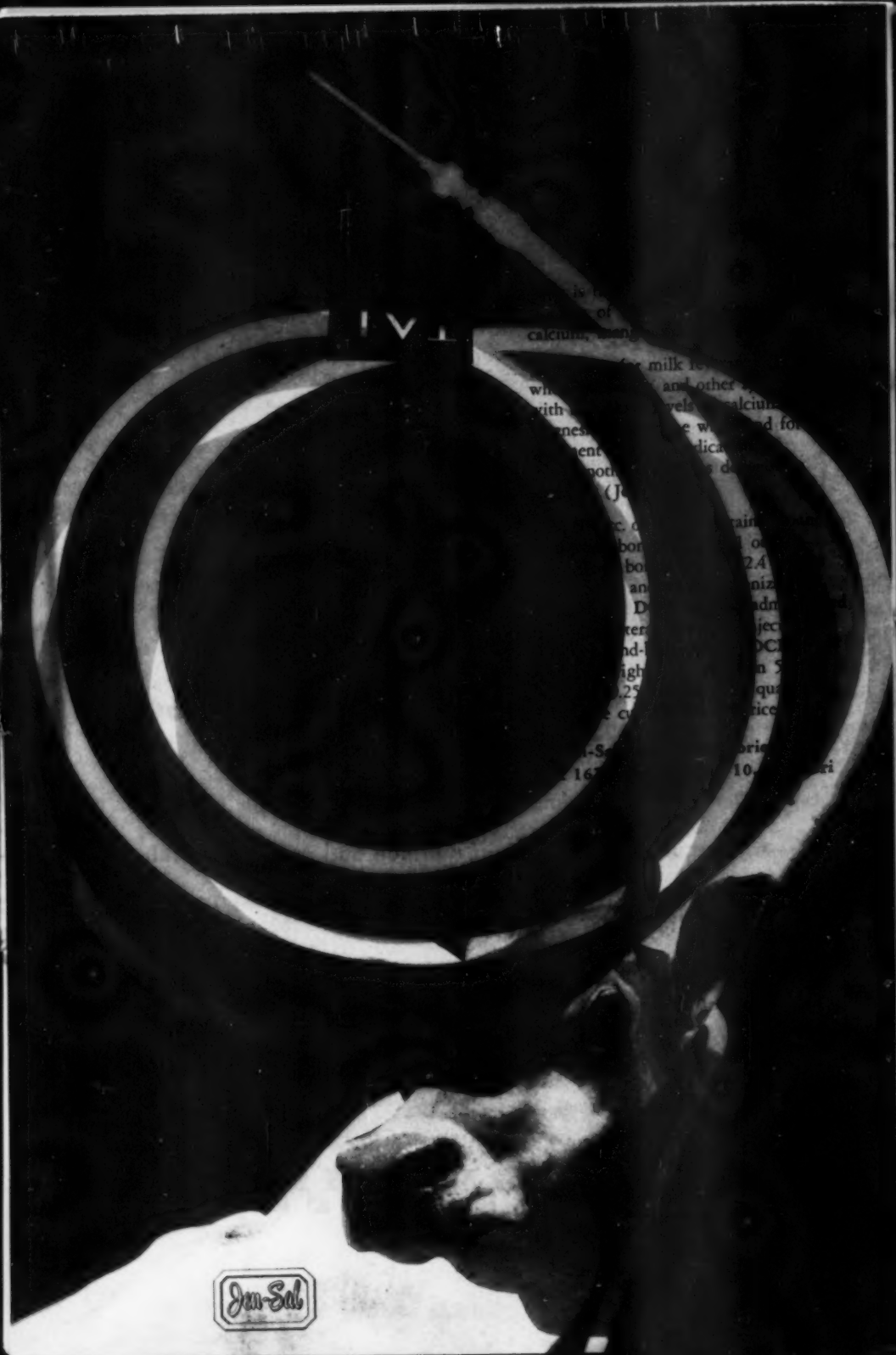
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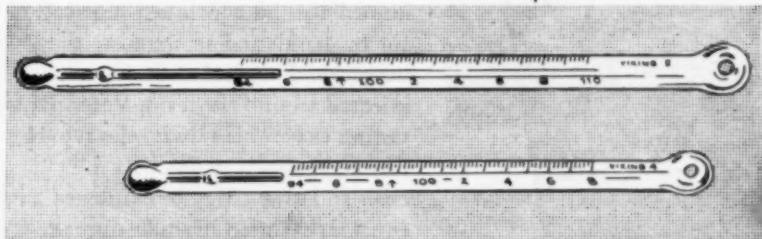




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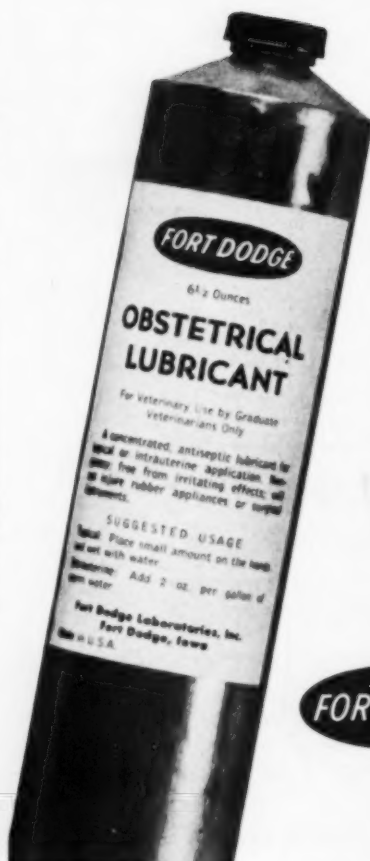
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VOL. CXX

MAY, 1952

No. 902

The Atlantic City Meeting A Message from President Wells

Two years ago in Dr. Zepp's message as AVMA president, he charitably referred to Florida as "the playland of the East." Such words from a "New Yorker" certainly behoove me to respond in kind about Atlantic City. Without question Atlantic City is "America's foremost convention city" and, in addition, is a wonderful place to relax and play. It is indeed a city "geared" to conventions. The accommodations for holding the scientific program, which is all arranged and looks like one of the best, and the entertainment features arranged by the Local Committee will really make this an outstanding annual meeting.

Hot weather during an AVMA meeting has been one of the frequent complaints. There is no such danger for this Eighty-Ninth Annual Meeting. The weather should be perfect for indoor meetings and outdoor bathing. In fact, June is reported to be the most pleasant month of the year in Atlantic City.

The above paragraphs might indicate that I do not take these AVMA conventions seriously. For fear that I may have created that impression let me hasten to assure you that they are serious, important events in the lives of all veterinarians. Policies adopted, actions taken, and decisions made at the Association's business meetings will affect the future of veterinary medicine—which also means the future of veterinarians. The AVMA, as the world's largest veterinary medical association, has had thrust upon it world leadership for our profession. The days spent by officers, executive board members, and official delegates attending business meetings are a vital, integral part of AVMA conventions.

The unselfish service performed by these dozens of members in behalf of the entire profession should be more adequately recognized by all veterinarians.



President John R. Wells

The addition of closed circuit television to the scientific program makes the sectional programs something that no veterinarian can afford to miss. The six sections offer papers of vital interest to members working in virtually every field of veterinary medicine.

The all-time record registration which was reached in Milwaukee last year will probably not be surpassed this year in Atlantic City. It is safe to predict, though, that the quality of the program and entertainment will equal last year's meeting. As you can see in the subsequent pages of this

issue of the JOURNAL, there will be few free moments but every moment will be occupied by the presentation of worthwhile scientific information or attendance at the numerous social and entertainment features.

As I said before, these AVMA conventions are *important*. No veterinarian who can attend should miss the opportunity to go to Atlantic City for the Eighty-Ninth Annual Meeting of the AVMA on June 23-26, 1952.

AVMA Officers, 1951-1952

- President—John R. Wells, West Palm Beach, Fla.
President-Elect—W. L. Boyd, St. Paul, Minn.
First Vice-President—E. A. Grist, New Braunfels, Texas.
Second Vice-President—C. C. Rife, Atlanta, Ga.
Third Vice-President—I. S. McAdory, Auburn, Ala.
Fourth Vice-President—A. D. Glover, Canton, Mo.
Fifth Vice-President—L. C. Swan, St. Catharines, Ont.
Executive Secretary—J. G. Hardenbergh, Chicago, Ill.
Assistant Executive Secretary—C. D. Van Houweling, Chicago.
Treasurer—H. E. Kingman, Jr., Chicago, Ill.

Executive Board

(Year in which terms expire is shown in parentheses)

- Chairman—W. G. Brock (1956), Dallas, Texas.
District I—A. L. MacNabb (1952), Guelph, Ont. (Deceased).
District II—S. F. Scheidy (1953), Drexel Hill, Pa.
District III—O. Norling-Christensen (1953), Wilmette, Ill.
District IV—R. S. Sugg (1954), Auburn, Ala.
District V—C. F. Schlotthauer (1955), Rochester, Minn.
District VI—Joseph M. Arburua (1956), San Francisco, Calif.
District VII—E. E. Wegner (1955), Pullman, Wash.
District VIII—W. G. Brock (1956), Dallas, Texas.
District IX—Edwin Laitinen (1952), Hartford, Conn.
District X—W. R. Krill (1954), Columbus, Ohio.

EX-OFFICIO MEMBERS OF EXECUTIVE BOARD

- John R. Wells (1953), West Palm Beach, Fla.
W. L. Boyd (1954), St. Paul, Minn.
W. M. Coffee (1952), La Center, Ky.

Board of Governors

- W. G. Brock, Chairman; John R. Wells; W. L. Boyd.

Executive Committee — AVMA House of Representatives

- P. G. MacKintosh, Washington, Chairman
J. W. Harrison, Colorado
A. A. Husman, North Carolina
H. E. Kingman, Sr., Wyoming
J. A. McCallam, District of Columbia
A. G. Misener, Illinois
J. T. Schwab, Wisconsin

House of Representatives

(As of April 10, 1952)

	Votes	Delegate	Alternate
Alabama	(2)	I. S. McAdory	P. W. Tedder
Arizona	(1)	Paul McQuown	Keith O. Lassen
Arkansas	(2)	Fred Thompson	H. R. Shay
California	(5)	C. E. Wicktor	F. P. Wilcox
Colorado	(2)	John W. Harrison	Earl D. Smith
Connecticut	(2)	Niel W. Pieper	Irving R. Vail
Delaware	(1)	E. L. Symington	C. C. Palmer
Dist. of Columbia	(2)	Chester A. Manthei	Wm. T. S. Thorp
Florida	(2)	Ronald F. Jackson	K. R. Owens
Georgia	(3)	C. C. Von Grep	Thomas J. Jones
Idaho	(2)	Arthur P. Schneider	L. V. Ruebel
Illinois	(5)	A. G. Misener	A. E. Bott
Indiana	(4)	Homer D. Carter	George W. Gillie
Iowa	(5)	C. D. Lee	F. B. Young
Kansas	(3)	F. L. Hart	Joe F. Knappenberger
Kentucky	(2)	Carl F. Gobert	F. M. Kearns
Louisiana	(2)	W. T. Oglesby	F. B. Wheeler
Maine	(1)	Alfred E. Coombs	J. Franklin Witter
Maryland	(2)	L. J. Poelma	M. H. Jacobs
Massachusetts	(3)	L. A. Paquin	B. S. Killian
Michigan	(4)	L. H. LaFond	P. V. Howard
Minnesota	(4)	Harry Evenson	N. A. Roettiger
Mississippi	(2)	R. H. Stewart	Glenn D. Gates
Missouri	(3)	J. L. Wells	G. F. Jungerman
Montana	(2)	G. A. Morrison	A. F. Hayes
Nebraska	(3)	W. F. Monson	W. I. Nelson
Nevada	(1)	Joseph B. Key	W. F. Fisher
New Hampshire	(1)	Carl L. Martin	Joseph P. Seraichick
New Jersey	(3)	J. R. Porteus	Robert P. Lawrence
New Mexico	(1)	Tom Evans	
New York	(5)	F. F. Fehr	E. S. Markham
North Carolina	(2)	A. A. Husman	
North Dakota	(2)	D. A. Wire	J. O. Foss
Ohio	(5)	Fred J. Kingma	E. W. Roberts
Oklahoma	(2)	C. H. Fauks	C. H. McElroy
Oregon	(2)		
Pennsylvania	(5)	Raymond C. Snyder	J. Robert Brown
Rhode Island	(1)	Joseph S. Barber	J. W. Armstrong
South Carolina	(2)	M. R. Blackstock	B. C. McLean
South Dakota	(2)	D. L. Cotton	O. H. Stalheim
Tennessee	(2)	W. R. Lawrence	H. W. Nance
Texas	(5)	E. A. Grist	L. G. Cloud
Utah	(2)	R. W. Gold	Hugh Hurst
Vermont	(2)	D. A. Walker	C. A. Jordan
Virginia	(2)	Taylor P. Rowe	Charles R. Pastors
Washington	(3)	P. G. MacKintosh	T. Robert Phelps
West Virginia	(1)	S. E. Hershey	V. H. Miller
Wisconsin	(4)	J. T. Schwab	
Wyoming	(2)	Harry Kingman	James E. Prier
Army	(2)	J. A. McCallam	Geo. L. Caldwell
NAFV*	(2)	L. T. Hopkins	F. W. Crawford
Canal Zone	(1)	R. G. Matheny	
Puerto Rico	(1)	Enrique R. Toro, Jr.	O. A. Lopez-Pacheco
Alberta	(2)	J. Gordon Anderson	J. E. Rattray
British Columbia	(2)	E. H. Sproston	
Manitoba	(2)	H. H. Ross	W. R. Giesbrecht
Nova Scotia	(2)		
Ontario	(5)	L. C. Swan	D. J. McLellan
Quebec	(3)	Paul Genest	L. A. Gendreau
Saskatchewan	(2)	J. S. Fulton	E. L. Brown
Cuba	(4)	Roberto Parajon	Angel M. Morales

*National Association of Federal Veterinarians.

Executive and Legislative Sessions

Tuesday, June 17

7:30 p.m. Committee on Budget—Room 106, Ambassador Hotel.

Wednesday, June 18

9:00 a.m. Board of Governors, first session—Room 106, Ambassador Hotel.

2:00 p.m. Board of Governors, second session—Room 106, Ambassador Hotel.

Thursday, June 19

9:00 a.m. Executive Board, first session—Room 104-5, Ambassador Hotel.

2:00 p.m. Executive Board, second session—Room 104-5, Ambassador Hotel.

7:30 p.m. Executive Board, third session—Room 104-5, Ambassador Hotel.

Friday, June 20

9:00 a.m. Executive Board, fourth session—Room 104-5, Ambassador Hotel.

Saturday, June 21

9:30 a.m. House of Representatives, first session—22 Club, Ambassador Hotel.

2:00 p.m. House of Representatives, second session—22 Club, Ambassador Hotel.

7:00 p.m. House of Representatives, third session (if necessary)—22 Club, Ambassador Hotel.

Thursday, June 26

6:00 p.m. Executive Board, final session—Room 104-5, Ambassador Hotel.

Election and Installation of Officers

Nominations for the election of officers of the Association will take place at the end of the Opening Session on Monday morning, June 23. If a ballot election is required on account of there being more than one nomination for the respective offices, polls will be set up in the AVMA executive secretary's office in the Ambassador Hotel on Tuesday, June 24. The officers to be elected at Atlantic City are: president-elect, five vice-presidents, and treasurer. There will be joint installation ceremonies for AVMA and Auxiliary officers at the Closing Session on Thursday, June 26.



The Atlantic City beach, with the hotels in the background.

Committee on Local Arrangements Eighty-Ninth Annual Meeting

Officers

Dr. J. R. Porteus, *General Chairman*
Dr. R. P. Lawrence, *Vice-General Chairman*
Dr. J. B. Engle, *General Secretary*

Executive Committee

Dr. J. R. Porteus, <i>Chairman</i>	Dr. W. L. Mackey
Dr. C. E. DeCamp	Dr. Chas. J. McNulty
Dr. James M. Delaney	Dr. J. A. S. Millar
Mrs. J. B. Engle	Mrs. J. A. S. Millar
Dr. W. C. Glenney	Mrs. Arthur F. North, Jr.
Dr. Louis Goldberg	Dr. Raymond C. Snyder
Dr. T. M. Goldhaft	Mrs. J. H. Spurlock
Dr. W. A. Hagan	Dr. H. C. Stephenson
Dr. R. A. Kelsner	Dr. N. E. Wernicoff

Committees

Registration and Information

C. E. DeCamp, *Chairman*
A. V. Bartenslager
J. A. Bivins
M. J. Bonese
W. J. Foster
O. K. Fox
A. R. Gilman
W. Hoffman
R. W. Jackson
L. Krawitz
R. May

J. McCarthy
J. R. McCoy
R. Meisels
A. F. North, Jr.
J. S. Proper
H. L. Ragsdale
H. G. Scheffler
B. W. Suydam
L. A. Wuori

Exhibits

Walter L. Mackey, *Chairman*
Max M. Bree

Edward A. Carbrej
Chas. E. Fanslau
Arthur R. Gemberling
George H. Hopson
Richard A. Huebner
Raymond E. Kerlin

Meeting Rooms and Equipment

Raymond C. Snyder, *Chairman*
Charles H. Chase, Jr.
C. K. Jewell
Edward J. Morrison

Committee on Local Arrangements, Atlantic City Meeting, June 23-26, 1952



Front row (left to right)—Drs. R. A. Kelsner, J. B. Engle, J. R. Porteus, R. P. Lawrence, H. C. Stephenson, J. A. S. Millar.

Second row (left to right)—Drs. C. E. DeCamp, N. E. Wernicoff, J. M. Delaney, T. M. Goldhaft, Louis Goldberg, C. J. McNulty, W. C. Glenney, R. C. Snyder.
Dr. W. A. Hagan was not present when the picture was taken.

Edward C. Preston
Sydney Rosenberg
Vincent W. Ruth

Entertainment

J. A. S. Millar, *Chairman*
E. T. Booth
E. L. Brower
J. Stuart Crawford
Wm. P. Doherty
S. A. Fittipaldi
Laurence W. Goodman
Leonard J. Goss
Chas. J. McAnulty
Arthur F. North, Jr.
S. F. Scheidy
Chas. R. Schroeder

Reception and Hospitality

W. A. Hagan, *Co-Chairman*
R. A. Kelser, *Co-Chairman*
W. W. Bailey
J. R. Brown
Samuel Coane
E. R. Cushing
W. R. Ecker
E. G. Foder
A. D. Goldhaft
R. A. Hendershott
L. B. Kornblatt
J. L. McAuliff
R. B. McClelland
J. S. McDaniel
E. V. Moore

E. L. Stubbs
A. W. Stults
C. P. Zepp, Sr.

Publicity

W. C. Glenney, *Chairman*
Mark W. Allam
Lester R. Barto
R. S. Huff
H. J. Metzger
W. Norman Reed
Oscar Sussman
C. P. Zepp, Sr.

Motion Pictures

T. M. Goldhaft, *Co-Chairman*
N. E. Wernicoff, *Co-Chairman*
David W. Crisman
L. B. Davis
David K. Detweiler
A. R. Gemberling
Thos. J. McConaghy
Robert R. Shomer
C. P. Zepp, Jr.

Hotels and Housing

Chas. J. McAnulty, *Chairman*
Roy F. Davenport
John J. Devine
William S. Miller
Samuel Pollock
James F. Savage
Munro Sours
J. H. Spurlock

Garages, Parking, Airports

Louis Goldberg, *Chairman*
Robert S. Armstrong
M. J. Bonese
Irving Borwinick
Chas. S. Gibbs
H. W. Peele
John T. Zurbrugg

Alumni Dinners

H. C. Stephenson, *Chairman*
Myron S. Arlein
James J. Black
E. T. Booth
Carl Bunn
Clarence C. Combs
Ryland P. Croshaw
F. B. Duke
Louis Goldberg
J. G. Hamilton
Lewis G. Hamilton
R. A. Hendershott
Nicholas L. Migliaccio
E. W. Smillie
Munro Sours
F. L. Vinson
Robert R. Watkins

Golf Tournament

James M. Delaney, *Chairman*
Louis A. Corwin
John T. McGrann
John J. Regan

What to Wear in Atlantic City

The last of June is supposed to be one of the pleasantest periods of the year in Atlantic City. The days are warm and the usual summer clothing, with a sweater or light coat handy, is suitable. In the evening, women will find a top coat comfortable. The usual business suit is comfortable for men in the evening.

Veterinary Pathologists to Meet

The American College of Veterinary Pathologists will meet on Monday June 23, at 7:00 p.m. in

Room 121-122, Ambassador Hotel, during the AVMA annual meeting in Atlantic City.

General Convention Entertainment

Monday, June 23, 3:00 p.m.—AVMA Golf Tournament—*Atlantic City Country Club*.

Tuesday, June 24, 8:00 p.m.—Visit to Steel Pier.

Wednesday, June 25, 6:30 p.m.—Alumni Dinners.

Wednesday, June 25, 9:00 p.m.—President's Dance and Entertainment—*Westminster Hall, Hotel Chelsea*.

(For Women's and teenagers' entertainment, see pages 254-255.)

Ethics Committees to Meet in Atlantic City

There will be a meeting of the ethics committees of all state and component associations with the AVMA Committee on Ethics at the Atlantic City meeting. Every state is urgently requested to have a member of its committee or a representative present. The time is 4:30 p.m. on Monday, June 23. The place will be announced in the official program. Plan now to have your state represented and bring your problems or suggestions on ethics.

s/S. W. Haigler, *Chairman*,
AVMA Committee on Ethics.

Message from the Chairman, Committee on Local Arrangements

The hard bench and the hickory stick are symbolic of the environment once associated with learning. Today's concept includes attractive schools, grounds, and equipment with opportunities for physical and social activities. These are now

pressing for conventions such as ours; in addition to the satisfying social atmosphere provided by our friends and colleagues; there are the sun and sea and sky and fresh air all about you to enjoy continuously throughout your visit.

General Officers of the Local Committee



Dr. R. P. Lawrence (left), Vice-General Chairman; Dr. J. R. Porteus, General Chairman; Dr. J. B. Engle, General Secretary.

recognized as essential factors in learning, if it is to be developed and utilized fully and realistically in the world we live in today. And so, beyond the school and college and university and through life, learning continues to flourish and bear fruit best in a favorable environment.

At our AVMA meeting place in New Jersey this year, you will find a happy, healthy environment for the advancement of professional learning. In addition to the hotels which are designed ex-

We in New Jersey, joined by our neighbors in New York and Pennsylvania, are honored to be able to extend our hospitality and to welcome you this year. It is said that to be a successful individual one should be a happy and healthy individual. So join us in June and "We'll Meet... with Success... in Atlantic City."

*s/J. R. PORTEUS, Chairman,
Committee on Local Arrangements.*

Veterinary Exhibitors Will Award "Lord" and "Lady" Watches at Convention

The American Veterinary Exhibitors Association announces that two wrist watches will be awarded to lucky persons at the AVMA convention in Atlantic City, June 23-26 — a "Lord Elgin" to the veterinarian and a "Lady Elgin" to the lady — whose names are drawn. This feature will be handled in the same manner as the luggage award by the exhibitors at the Milwaukee convention last year. Registrants will be furnished with entry cards containing the booth numbers of all commercial exhibits. To be eligible for the drawing, entrants must visit each exhibit and get their cards stamped by the attendants in the ap-

propriate squares. The cards will then be deposited in the box provided in the registration area.

All entry cards must be deposited by 6:00 p.m. Wednesday, June 25; the drawings will be made at about 10:00 p.m. that evening during the president's dance and entertainment.

As a part of their continued efforts to foster participation of commercial firms in AVMA convention exhibits, to improve the exhibits, and to increase interest in them by those in attendance, the Exhibitors Association decided this year to make both veterinarians and their wives eligible for the awards instead of having the single award as presented last year.

The 1952 Session – Official Call

The Eighty-Ninth Annual Meeting of the American Veterinary Medical Association will be held at the Ambassador Hotel, Atlantic City, N. J., June 23-26, 1952.

Executive sessions of the Committee on Budget, Board of Governors, and Executive Board will be held at the Ambassador Hotel beginning Tuesday, June 17, and running through Friday, June 20.

The House of Representatives will convene on Saturday, June 21. The first session will start at 9:30 a.m., eastern daylight saving time. Delegates are urged to time their arrival for not later than Friday night so that the session will not be delayed.

The Opening Session of the convention is scheduled for 9:00 a.m., Monday, June 23, in the Renaissance Room of the Ambassador, where registration facilities will start functioning Sunday noon, June 22, and continue daily thereafter.

Following the opening ceremonies, formal addresses, and presentation of awards, the nomination of officers for the ensuing year will take place. A president-elect, five vice-presidents, and a treasurer are to be elected. Installation of officers will take place at a brief session Thursday noon, June 26. This year, for the first time, there will be joint installation ceremonies for both Auxiliary and Association officers, the Auxiliary having formally requested the Board of Governors that this be allowed and approval given.

Section meetings will be held at the Ambassador Hotel beginning Monday afternoon, June 23, and continuing through Thursday morning, June 26. A number of group meetings, meetings of related organizations, and special conferences will be held as shown in the program schedule.

The meetings of the Women's Auxiliary, including sessions of their Executive Board, House of Representatives, and other functions for women will be held as shown in the program.

The President's Dance, with special entertainment, will be held on Wednesday evening, June 25, at the Ambassador Hotel following the alumni dinners. This year, President Wells has requested the Committee on Local Arrangements not to schedule the usual formal reception and receiving line. It is felt that this rather protracted function might well be replaced with an interlude in the dance during which the president and others can greet the assemblage more informally.

Convention registration will open Sunday noon, June 22, on the lobby level and lounge floor of the Ambassador, where the technical and educational exhibits will be displayed beginning at 8:30 a.m., Monday, June 23.

Headquarters of the AVMA, the Committee on Local Arrangements, the press room, and other convention activities will be located in the Harlequin Room, just off the main lounge.

A new departure, a "hospitality lounge," will be maintained by the Local Committee in the Sun Deck of the Ambassador Hotel where visiting members and their wives will be welcomed throughout the convention.

This issue of the JOURNAL contains practically complete details of the Atlantic City program. Members are urged to study it for information about the varied and attractive program events of professional interest and the social entertainment that will feature the 1952 meeting in the "Play Ground of America."

A portion of Atlantic City as seen from the ocean. The Ambassador Hotel (1) and the Ritz-Carlton (2). The Chelsea Hotel is at the left of the Ambassador.



AVMA Group Conferences and Meetings of Other Organizations

Sunday, June 22

- 9:00 a.m. Joint Conference of Constituent Association Secretaries, Editors, Ethics and Public Relations Workers, and Representatives of State Examining Boards—*Venetian Room, Ambassador Hotel.*
- 10:00 a.m. Committee on Local Arrangements—*Room 117-118, Ambassador Hotel.*
- 1:30 p.m. Association of Deans of American Colleges of Veterinary Medicine—*Card Room, Hotel Chelsea.*
- 1:30 p.m. Conference of Veterinary Parasitologists—*Crystal Room A, Hotel Chelsea.*
- 2:00 p.m. Conference of Constituent Association Secretaries—*Room 125, Ambassador Hotel.*
- 2:00 p.m. Conference of Editors—*Room 117-118, Ambassador Hotel.*
- 2:00 p.m. Conference of Ethics and Public Relations Workers—*Room 109-10-11, Ambassador Hotel.*
- 2:00 p.m. Conference of State Examining Boards—*Room 121-122, Ambassador Hotel.*
- 4:00 p.m. Reports from Above Groups and Discussion—*Venetian Room, Ambassador Hotel.*
- 5:00 p.m. Meeting of Delegates of the Student Chapters and Auxiliaries—*22 Club, Ambassador Hotel.*
- 5:00 p.m. Phi Zeta Fraternity—*Room 104-105, Ambassador Hotel.*
- 6:00 p.m. American Veterinary Exhibitors Association, Inc.—*Room 125, Ambassador Hotel.*
- 8:00 p.m. American Board of Veterinary Public Health—*Room 117-118, Ambassador Hotel.*

Monday, June 23

- 4:30 p.m. Conference of Chairmen and Workers, State Ethics Committees—*Room 104-105, Ambassador Hotel.*
- 4:30 p.m. Conference of Veterinary Radiologists—*Room 117-118, Ambassador Hotel.*
- 4:30 p.m. Meeting of Veterinarians Interested in the Care of Laboratory Animals—*Room 106, Ambassador Hotel.*
- 7:00 p.m. National Association of Federal Veterinarians—*Room 125, Ambassador Hotel.*
- 7:00 p.m. Women's Veterinary Medical Association—*Room 104-105, Ambassador Hotel.*
- 7:00 p.m. American College of Veterinary Pathologists—*Room 121-122, Ambassador Hotel.*
- 8:00 p.m. National Board of Veterinary Medical Examiners—*Room 117-118, Ambassador Hotel.*

Tuesday, June 24

- 12:30 p.m. American Association of Veterinary Anatomists—*Room 117-118, Ambassador Hotel.*
- 4:30 p.m. Conference of Editors—*Room 121-122, Ambassador Hotel.*
- 6:00 p.m. Alpha Psi Fraternity—*Carlton Room, Ritz-Carlton Hotel.*
- 6:30 p.m. Association of Veterinary Physiologists and Pharmacologists—*Room 104-105, Ambassador Hotel.*
- 7:00 p.m. National Assembly of Chief Livestock Sanitary Officials—*Room 106-107, Ambassador Hotel.*
- 7:30 p.m. Conference of Zoo Veterinarians—*Room 117-118, Ambassador Hotel.*

Wednesday, June 25

- 12:15 p.m. American Animal Hospital Association—*Room 125, Ambassador Hotel.*

Thursday, June 26

- 2:00 p.m. Conference on Anthrax and Foot-and-Mouth Disease—*22 Club, Ambassador Hotel.*

Women's Activities

Mrs. John H. Spurlock, *Chairman*
 Mrs. J. B. Engle, *Co-Vice Chairman* Mrs. J. A. S. Millar, *Co-Vice Chairman*
 Mrs. Arthur F. North, Jr., *Secretary*

Reception and Tea

Mrs. R. A. Hendershott, *Chairman*
 Mrs. J. R. Porteus, *Co-Chairman*
 Mrs. E. L. Brower
 Mrs. J. W. Crouse
 Mrs. J. M. Delaney
 Mrs. W. J. Foster
 Mrs. O. K. Fox
 Mrs. T. M. Goldhaft
 Mrs. L. J. Goss
 Mrs. L. G. Hamilton
 Mrs. R. A. Kelser
 Mrs. J. H. Spurlock

Registration

Mrs. C. E. DeCamp, *Chairman*
 Mrs. Lester R. Barto, *Co-Chairman*
 Mrs. James Baker
 Mrs. John E. Crawford
 Mrs. J. B. Engle
 Mrs. W. C. Glenney
 Mrs. John M. McCarthy
 Mrs. H. A. Mills
 Mrs. A. Morris
 Mrs. Leo Wuori

Carolyn Hendershott

Nancy Oster
 Sylvia Sours
 Martha Spurlock
 Kathy Stults
 Burt Anderson
 Robert Goldberg
 Wilson Kinnach
 Robert Lawrence
 Bob Newlin
 Tevis Wernicoff

Luncheon and Fashion Show

Mrs. Chas. J. McNulty, *Chairman*
 Mrs. Louis Goldberg, *Co-Chairman*
 Mrs. J. Stuart Crawford
 Mrs. Robert Lawrence
 Mrs. William Lentz
 Mrs. J. T. McGrann
 Mrs. J. A. S. Millar
 Mrs. William Miller
 Mrs. Munro Sours

Teenagers

Mrs. T. A. Newlin, *Chairman*
 Mrs. Carl Lohmeyer, *Co-Chairman*
 Mrs. Amos Stults, *Co-Chairman*
 Mrs. R. S. Edmonds
 Mrs. J. B. Engle
 Mrs. J. B. Hagenbuch
 Mrs. John Tanis

Junior Committee

Elaine Barto

Information

Mrs. R. R. Shomer, *Chairman*
 Mrs. A. F. North, Jr., *Co-Chairman*
 Mrs. J. H. Beattie
 Mrs. C. J. Chehayl
 Mrs. Samuel Coane
 Mrs. John J. Devine
 Mrs. Tevis Goldhaft
 Mrs. Ralph Jackson
 Mrs. Lloyd Sanders
 Mrs. N. E. Wernicoff
 Mrs. Emery Wingerter

Committee on Women's Activities, Atlantic City Meeting, June 23-26, 1952



Front row (left to right)—Mrs. G. H. Kinnach, Mrs. J. M. Savage, Mrs. J. B. Engle, Mrs. J. H. Spurlock, Mrs. J. A. S. Millar, Mrs. A. F. North, Jr., Mrs. J. R. Porteus.
 Second row (left to right)—Mrs. R. A. Hendershott, Mrs. R. P. Lawrence, Mrs. Louis Goldberg, Mrs. A. W. Stults, Mrs. T. A. Newlin, Mrs. Carl Lohmeyer, Mrs. C. E. DeCamp, Mrs. L. R. Barto, Mrs. R. R. Shomer, Mrs. J. J. Devine.
 Absent when picture was taken: Mrs. C. J. McNulty, Mrs. J. T. McGrann.

Brunch

Mrs. J. A. S. Millar, *Chairman*
Mrs. Lester Barto, *Co-Chairman*
Mrs. William P. Doherty
Mrs. Arthur F. North, Jr.

Decorations

Mrs. G. H. Kinnach, *Chairman*
Mrs. John J. Devine, *Co-Chairman*
Mrs. L. B. Davis
Mrs. S. Rosenberg

Mrs. Maurice Smith
Mrs. Carl Schenholm

Hospitality

Mrs. James Savage, *Chairman*
Mrs. Robt. Lawtence, *Co-Chairman*
Mrs. J. T. McGrann, *Co-Chairman*
Mrs. William Bailey
Mrs. John Crawford, Sr.
Mrs. William Ecker
Mrs. Elwood Fooder

Mrs. L. W. Goodman
Mrs. W. A. Hagan
Mrs. R. A. Hendershott
Mrs. George R. Lebovitz
Mrs. J. S. McDaniel
Mrs. Henry W. Peele
Mrs. J. R. Porteus
Mrs. S. F. Scheidy
Mrs. D. C. Service
Mrs. Robert Simms
Mrs. L. J. Tompkins

Message from the Chairman of the Committee on Women's Activities

The women of New Jersey extend a sincere invitation to you to come to Atlantic City in June. As you know, this is the "playground of the world," and we are sure everyone will enjoy strolling along the famous 6-mile boardwalk and bathing in the wonderful Atlantic Ocean. In addition to the boardwalk and ocean, Atlantic City offers fine hotels and seafood restaurants; and there are beautiful homes to see along the oceanfront.

The committee is planning an interesting program for the women's and teenagers' entertainment. On Monday afternoon, the opening day of the convention, a tea and reception will be held in the Palm Court and lounge of the Ritz Carlton Hotel. We urge all to attend and meet old friends and acquaintances and make new ones. On Tuesday, a luncheon will be held in the Wedgewood Room of the Hotel Chelsea. At this time, we will honor the presidents of the New York, Pennsylvania, and New Jersey auxiliaries. A representative of the Atlantic City Chamber of Commerce will advise us on points of interest to see and where to shop in Atlantic City. Wednesday morning a brunch and fashion show are scheduled in Westminster Hall of the Hotel Chelsea.

A hospitality room at the Ritz Carlton Hotel and an information desk at the Ambassador Hotel, with attendants to assist in planning your days

while in Atlantic City, will add to your comfort and enjoyment.

Be sure to have your youngsters look up the teenagers' program in this issue and see the wonderful things the committee has planned for their pleasure.

Come and join us at the resort that is a three-



Mrs. J. H. Spurlock

fold paradise of recreation, entertainment, and climate—a marine picture painted against metropolitan diversions. When you are through with the sea, you are not through in Atlantic City; there are still many attractions to keep you amused.

s/MRS. J. H. SPURLOCK, *Chairman,*
Committee on Women's Activities.



Mrs. J. A. S. Millar (left), *Co-Vice Chairman*; Mrs. Arthur F. North, Jr., *Secretary*; Mrs. J. B. Engle, *Co-Vice Chairman*.

Message from the President of the Women's Auxiliary

The Women's Auxiliary to the AVMA will be in session during the Eighty-Ninth Annual Meeting of the AVMA in Atlantic City. We invite the



Mrs. C. E. Bild

wives of all veterinarians and veterinary students to attend all functions scheduled for the women.

We urge you to attend all business sessions of the Auxiliary so that you may become more familiar with the procedure of the House of Representatives and of the annual business meeting. Delegates from state, provincial, and regional auxiliaries conduct the business of the House of

Representatives, but all members are asked to attend this meeting as well as the business meeting where officers give their reports and election of officers takes place.

The Auxiliary has been invited to hold the installation of its officers jointly with the AVMA on Thursday noon, June 26. We are depending on you, our members, to merit this courtesy by attending this installation ceremony.

Mrs. J. H. Spurlock, chairman of Women's Activities, and her committees are making wonderful plans for your entertainment. Atlantic City is a delightful vacation city and I'm sure that all of you will enjoy the world famous boardwalk, with its numerous attractions.

We look forward to seeing you in Atlantic City.

(MRS. C. E.) HELEN BILD, *President.*

Women's Auxiliary Officers

President—Mrs. C. E. Bild, Miami, Fla.

President-Elect—Mrs. H. S. MacDonald, Toronto, Ont.

First Vice-President—Mrs. Russell A. Runnells, East Lansing, Mich.

Second Vice-President—Mrs. L. R. Richardson, Ravenna, Ohio.

Third Vice-President—Mrs. Earl N. Moore, Wooster, Ohio.

Secretary—Mrs. C. M. Rodgers, Blandinsville, Ill.

Treasurer—Mrs. Charles C. Rife, Atlanta, Ga.

Chairman, House of Representatives—Mrs. Alfred E. Coombs, Skowhegan, Maine.

Recorder, House of Representatives—Mrs. Lewis H. Moe, Stillwater, Okla.

Retiring President—Mrs. Dennis Coughlin, Topeka, Kan.

Women's Program

Saturday, June 21

7:00 p.m. Budget Committee, Women's Auxiliary—*President's Room.*

Sunday, June 22

9:30 a.m. Meeting of Executive Board of Women's Auxiliary—*President's Room.*

12:50 p.m. Registration Opens—*Ambassador Hotel.*

Monday, June 23

8:30 a.m. Registration—*Ambassador Hotel.*

8:50 a.m. Visit Commercial and Educational Exhibits—*Ambassador Hotel.*

9:00 a.m. Attend Opening Session of the AVMA—*Ambassador Hotel.*

3:00

to

5:00 p.m. Women's Tea and Reception—*Palm Court and Lounge, Ritz-Carlton Hotel.*

(Continued on next page)

Tuesday, June 24

- 9:30 a.m. House of Representatives, Women's Auxiliary (All interested women are invited)—*Ball Room, Ritz-Carlton Hotel.*
1:00 p.m. Annual Luncheon of Women's Auxiliary—*Wedgewood Room, Hotel Chelsea.*
8:00 p.m. Visit to Steel Pier.

Wednesday, June 25

- 10:00 a.m. Brunch, Women's Auxiliary, followed by Style Show—*Westminster Room, Hotel Chelsea.*
1:00 p.m. Meeting of Presidents and Secretaries of State Auxiliaries—*Carlton Room, Ritz-Carlton Hotel.*
(This afternoon is open for individual choices.)
6:30 p.m. Alumni Dinners. See *Bulletin Board.*
9:00 p.m. President's Dance and Entertainment—*Westminster Hall, Hotel Chelsea.*

Thursday, June 26

- 9:00 a.m. Annual Meeting of Women's Auxiliary—*Ball Room, Ritz-Carlton Hotel.*
12:30 p.m. Closing Session of the AVMA Eighty-Ninth Annual Meeting—*Renaissance Room, Ambassador Hotel.*
(Installation of AVMA officers and Women's Auxiliary officers.)

Teenagers' Program

Monday, June 23

- 2:00 p.m. to
4:00 p.m. Ocean Swimming.
4:15 p.m. Cabana Party—*Ambassador Hotel.*
8:00 p.m. to
9:00 p.m. Informal Get-Acquainted Party—*Hotel Chelsea.*

Tuesday, June 24

- 7:30 a.m. to
8:30 a.m. Bicycle Tour of World-Famous Boardwalk.
10:00 a.m. to
12:00 noon Ocean or Sea-Water Pool Swimming.
2:00 p.m. to
4:00 p.m. Ocean Swimming.
4:15 p.m. Cabana Party.
8:00 p.m. Visit to Steel Pier.

Wednesday, June 25

- 10:00 p.m. to
12:00 noon Ocean Swimming or Teenager Frolic at Pool.
2:00 p.m. Scavenger Hunt.
4:00 p.m. Ocean Swimming.
6:30 p.m. Alumni Dinners.
9:00 p.m. President's Dance and Entertainment—*Hotel Chelsea.*

Thursday, June 26

- 10:00 a.m. to
12:00 noon Ocean Swimming.
(Teenager room with juke box will be open throughout the Convention at the Hotel Chelsea.)

Second Annual Preconvention Conference Scheduled for Atlantic City

The first preconvention conference held in Milwaukee last year proved to be so popular that a similar conference is scheduled for Sunday, June 22, the day before the formal opening of the 1952 convention in Atlantic City. Five groups, secretaries of constituent associations, editors of veterinary medical publications, veterinary medical examining boards, and the ethics and public relations committeemen of the AVMA and constituent associations, will join forces for a discussion of the subject "What Can Be Done to Eliminate the Illegal Practice of Veterinary Medicine?"

Representatives of all groups will meet together for the morning and luncheon sessions. The morning session will consist of talks by representatives from each of the above groups. Each speaker will discuss the general subject of the conference from the viewpoint of the segment he represents. These talks will be "snappy," twenty minute talks, with ten minutes for group discussion following each presentation.

The luncheon speaker will be Mr. Oliver Field, director of the American Medical Association's bureau of investigation. Mr. Field has had years of experience gathering evidence of illegal medical practice and is an authority on the subject. In addition, he is a capable and forceful speaker.

After the luncheon the five groups will convene separately to discuss the morning's program and how each can contribute most to the elimination of illegal practice. Each group will render a report to the conference as a whole at 4 p.m., and there will then be a general discussion of the reports and the day's meeting.

Secretaries, editors, veterinary medical examiners, and members of the ethics and public relations committees are urged to attend this conference.

Supper for Students Scheduled for Sunday, June 22

Dr. John R. Wells, AVMA president, will act as host for the Association at the supper for representatives of the student chapters and auxiliaries. Faculty advisers, their wives, and officers of the AVMA and the Women's Auxiliary are also invited to attend this annual affair which will be held in the 22 Club of the Ambassador Hotel. Supper will be served at 5 p.m. this year, so there will be more time for the business meetings that follow.

Last year in Milwaukee, almost 100 attended the buffet supper held, as it is this year, the evening before the official opening of the convention. The main purpose of the social gathering is to give the students and their wives an opportunity to get acquainted early in convention week so that they may continue their association and exchange ideas during the week.

After the supper, the student chapter representatives and faculty advisers will meet with the

AVMA staff in Room 121-2 in the Ambassador, and the representatives of the student auxiliaries will meet with the officers of the Auxiliary to the AVMA in Room 120 of the Ambassador.

Editors' Conference

Editors of publications in the classifications listed below are invited to attend the conference for editors to be held Tuesday, June 24, at 4:30 p.m., during the AVMA annual meeting in Atlantic City:

Veterinary journals published regularly, with a national circulation.

Official organs of state veterinary medical associations.

Veterinary college periodicals sponsored by either alumni organizations or student chapters.

House organs published by veterinary supply houses.

Program.—The chairman of the conference this year, Dr. H. Preston Hoskins, editor of the *North American Veterinarian*, is planning to have the following subjects discussed:

The function and scope of a bulletin or other publication sponsored by a state association.

The purpose and field of a commercial house organ.

Results of a survey of current publications identified with veterinary college groups.

The final subjects and speakers will be published in the official program of the convention.

Zoo Veterinarians to Meet

The zoo veterinarians will hold their annual meeting during the AVMA convention in Atlantic City on Tuesday, June 24, at 7:30 p.m. in Room 117-118 of the Ambassador Hotel.

This is an unofficial group of veterinarians employed either full or part time by various zoos throughout the United States and Canada. Each year, since 1946, the members convene during the annual convention of the AVMA to present case reports, papers, and general discussions dealing with medical problems of wild animals.—s/Patricia O'Connor, D.V.M., Secretary.

Postconvention Conference on Anthrax and Foot-and-Mouth Disease

Because of widespread occurrence of anthrax in several states (see p. 298) and the presence of foot-and-mouth disease in Canada, the AVMA invited the U. S. Livestock Sanitary Association and the National Assembly of Chief Livestock Sanitary Officials to hold a postconvention meeting on these diseases the last afternoon of the AVMA convention in Atlantic City, June 26, 1952.

The program will provide the latest information about extent and control of the disease in the two countries. All veterinarians are invited to attend the conference. A complete program will be announced in the June JOURNAL.

Opening Session

Renaissance Room — Ambassador Hotel

Monday, June 23, 9:00 a.m.

Music.

9:30 a.m.

Call to Order.—President John R. Wells.

Invocation.—The Rev. Harvey Bennett, Pastor, First Presbyterian Church.

The National Anthem.—Led by Dr. Raymond C. Snyder.

Address of Welcome.—The Honorable Alfred E. Driscoll, Governor of the State of New Jersey.

Response.—Dr. J. R. Porteus, President, The Veterinary Medical Association of New Jersey.

Greetings from Women's Auxiliary.—Mrs. C. E. Bild, President, Miami, Fla.

Address.—Dr. John R. Wells, President.

Announcements.—Dr. J. B. Engle, General Secretary, Committee on Local Arrangements.

Presentation of Awards.

By Dr. G. W. Mather, Chairman, Special Committee on Humane Act Award:

1952 Humane Act Award.

By Dr. John R. Wells, Chairman *ex officio*, Committee on Awards:

Twelfth International Veterinary Congress Prize.

Borden Award for 1952.

By Dr. W. G. Brock, Chairman, Executive Board:

Gold Key to Incoming President.

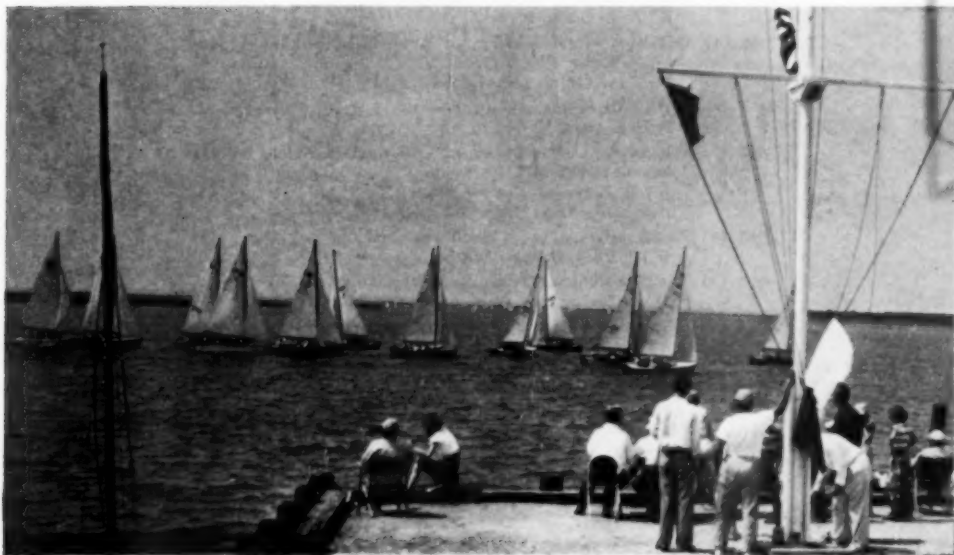
Service Scroll to Retiring President.

*Nomination of Officers.**

*If a ballot election is required (due to having more than one nomination for the respective offices), polls will be set up in the executive secretary's office in the Ambassador Hotel on Tuesday, June 24.

Officers to be elected at Atlantic City are: president-elect, five vice-presidents, and treasurer. There will be joint installation ceremonies for AVMA and Auxiliary officers at the Closing Session on Thursday, June 26.

Sailing Regatta at Atlantic City





G. W. Jensen, Antioch, Ill., Chairman

Section on General Practice

Monday, June 23, 1:30 p.m.

*Renaissance Room,
Ambassador Hotel*

First Session

(Fifteen minutes before the opening of the meeting a motion picture, "Lungworm Disease of Cattle," will be shown.—*Regional Animal Disease Research Laboratory, Auburn, Ala.*)

- 1:30 Opening Remarks by Chairman.
Report of Secretary.
- 1:35 (1) Mastitis and the Practitioner.
C. R. Curtis, Portage, Wis.
Discussion.
G. L. H. Weaver, Oxford, Pa.
- 2:05 (2) Television—Demonstration of Intravenous Medication Apparatus for Cows.
J. V. McCabon, Downingtown, Pa., and J. A. Rogers, Bryn Mawr, Pa.
Narrator—*A. G. Danks, Ithaca, N. Y.*
- 2:15 (3) Rumen Function in Calf Nutrition and Health (Illustrated).
W. D. Pounden, Wooster, Ohio.
- 2:45 (4) Television—Demonstration of Amputation of Cow's Claw.
C. W. Raker, Philadelphia, Pa.
Narrator—*A. G. Danks, Ithaca, N. Y.*
- 2:55 (5) Beef Cattle Problems (Illustrated).
F. E. Connor, Morris, Ill.
- 3:25 (6) Television—Demonstration of Collection of Rumen Samples for Examination and Transfusion.
W. D. Pounden, Wooster, Ohio.
Narrator—*A. G. Danks, Ithaca, N. Y.*
- 3:35 (7) Practical Procedures in Horse Practice.
W. F. Riley, Jr., East Lansing, Mich.
- 4:05 (8) The Hog Cholera Problem and Vaccination.
H. E. Biester and L. H. Schwarte, Ames, Iowa.
- 4:25 (8a) Report on a Hog Cholera Vaccination Survey.
W. A. Aitken, Chicago, Ill.

Discussion.

Adjournment at 4:55 p.m.

Section on General Practice

Tuesday, June 24, 9:00 a.m.

*Renaissance Room,
Ambassador Hotel*

Second Session



J. D. Beck, Philadelphia, Pa., Secretary

(Fifteen minutes before the opening of the meeting a motion picture, "Bovine Coccidiosis," will be shown.—*Regional Animal Disease Research Laboratory, Auburn, Ala.*)

- 9:00 (9) Treatment of Genital Diseases of the Dairy Cow.
Ryland Croshaw, Columbus, N. J.

Discussion.
D. C. Wood, Greensburg, Ind.

- 9:30 (10) Shipping Fever in Cattle.
J. L. McAuliff, W. V. Phillips, and John R. Steele, Cortland, N. Y.

Discussion.
G. H. Kinnach, Hightstown, N. J.

- 10:00 (11) Television—Demonstration of Nervous Symptoms of Newcastle Disease.
A. D. Goldbapt, Vineland, N. J.
Narrator—*A. G. Danks, Ithaca, N. Y.*

- 10:10 (12) Radiological Localization in Diagnosis of Foreign Bodies in Cattle (Illustrated).
F. A. Spurrell, St. Paul, Minn.

Nominations for Section Officers.

- 10:40 (13) Television—1. Demonstration of Endoscopy in a Horse. 2. Demonstration of Percussion in a Horse.
Frank Kral, Philadelphia, Pa.
Narrator—*A. G. Danks, Ithaca, N. Y.*

- 10:50 (14) Brucellosis Eradication—A Challenge to Practitioners.
A. M. Orum, Carthage, Ill.
Discussion.
M. M. Rabstein, Frederick, Md.

- 11:20 (15) Leptospirosis in Farm Animals.
W. E. LaGrange, Media, Pa.; J. V. McCabon, Downingtown, Pa.; and R. B. Little, Princeton, N. J.

- 11:50 (16) Television—Demonstration of Bleeding Large and Small Hogs.
E. E. Chambers, Rossville, Ga.
Narrator—*A. G. Danks, Ithaca, N. Y.*

Adjournment at 12:00 noon.



L. M. Hutchings, West Lafayette, Ind., Chairman

Section on Research

Monday, June 23, 1:30 p.m.

22 Club,
Ambassador Hotel

First Session

Opening Remarks by Chairman.
Report of Secretary.

- 1:35 (17) The Role of Whole Milk Tests in Ascertaining the Brucellosis Status of Cattle (Illustrated).
G. E. Blake and C. A. Manthei, Beltsville, Md.
- 1:55 (18) Factors Influencing the Standardization of *Clostridium Perfringens* Type D Bacterin (Illustrated).
J. Munoz, L. F. Schuchardt, and W. F. Verwey, West Point, Pa.
- 2:15 (19) Antigenic Typing of *Pasteurella Multocida* by Using Chicken Embryo Vaccine in Mice (Illustrated).
W. D. Yoder and I. A. Merchant, Ames, Iowa.
- 2:35 (20) Avianized *Vibrio Fetus* Vaccine and Some Preliminary Observations on its Use (Illustrated).
J. C. Osborne, Raleigh, N. Car.
- 2:55 (21) Studies in Pullorum Disease. XXX. The Effect of Oral Administration of Testicular Extract on the Infectivity of *Salmonella Pullorum* in Chicks.
Ronald Guatkin, Lucija Dzenis, and G. B. Oakland, Hull, Quebec.
- 3:15 (22) Experimental and Clinical Studies on Auricular Fibrillation in Horses (Illustrated).
D. K. Detweiler, Philadelphia, Pa.
- 3:35 (23) The Pathology of Total Body Radiation in Dogs Exposed to an Atomic Explosion (Illustrated).
C. A. Gleiser, Washington, D. C.
- 3:55 (24) Studies of the Toxic Factors in Rumen Ingesta of Cows and Sheep II (Illustrated).
R. W. Dougherty, Ithaca, N. Y.; R. M. Cello, Davis, Calif.
- 4:15 (25) The Use of the Small Laboratory Animal for Repeated Clinical Pathological Studies (Illustrated).
J. K. MacNamee and R. W. Sheehy, Army Chemical Center, Md.

Adjournment at 4:30 p.m.

Section on Research

Tuesday, June 24, 9:00 a.m.

22 Club,
Ambassador Hotel

Second Session



J. A. Baker, Ithaca, N. Y., Secretary

- 9:00 (26) Effect of Pseudorabies Virus (Aujeszky Strain) in the Swiss Albino Mouse and the Syrian Hamster.
R. L. Reagan, D. M. Schenck, M. Harmon, and A. L. Brueckner, College Park, Md.
- 9:20 (27) Newcastle Disease Antibodies in the Serum Globulin Fractions of the Chicken (Illustrated).
S. C. Schmittle, Urbana, Ill.
- 9:40 (28) Some Effects of Newcastle Disease Virus on the English Sparrow (Illustrated).
D. P. Gustafson and H. E. Moses, Lafayette, Ind.
- 10:00 (29) Transmission Experiments with Hog Cholera Virus.
L. H. Schwarte, Ames, Iowa.
- 10:20 (30) The Relation of Infarction to the Formation of Button Ulcers in Hog Cholera Infected Pigs (Illustrated).
H. W. Dunne, E. M. Smith, and R. A. Runnells, East Lansing, Mich.
- Nominations for Section Officers.
- 10:45 (31) A Method of Screening Drugs to be Used in the Treatment of Anaplasmosis — Results of Testing with Aureomycin and Terramycin (Illustrated).
J. G. Miller, Helen Levy, and W. T. Oglesby, Baton Rouge, La.
- 11:05 (32) Daily Minimal Dosage of Phenothiazine in Control of Nematode Infections in Cattle (Illustrated).
W. E. Brock, I. O. Kliever, and C. C. Pearson, Stillwater, Okla.
- 11:25 (33) Variability in Effect of Stomach Worm, *Haemonchus Contortus*, Infections in Lambs (Illustrated).
J. T. Lucker, Beltsville, Md.
- 11:45 (34) Classification of North American Leptospiras.
W. S. Gochenour, Jr. and R. H. Yager, Washington, D. C.

Adjournment at 12:00 noon.



Section on Small Animals

Tuesday, June 24, 1:30 p.m.

*Renaissance Room,
Ambassador Hotel*

First Session

L. R. Barto, Basking Ridge, N. J., Chairman

- 1:30 (35) Cardiac Resuscitation (Illustrated by Motion Picture and Slides).
L. E. Johnson, Columbus, Ohio.
Opening Remarks by Chairman.
Report of Secretary.
- 2:00 (36) Today's Standard of Fracture Treatment in Small Animals (Illustrated).
Jacques Jenny, Philadelphia, Pa.
- 2:30 (37) Television—Episioplasty in the Bitch.
C. L. Blakely, Boston, Mass.
- 2:50 (38) The Type and Clinical Evidence of Foreign Bodies and Related Pathology of the Canine Alimentary Tract (Illustrated).
F. J. Kingma and E. J. Cutcott, Columbus, Ohio.
- 3:05 (39) Television—Intestinal Anastomosis.
W. F. Hoffman, Pittsburgh, Pa.
Narrator—*J. A. S. Millar, Deal, N. J.*
- 3:30 (40) Will Vaccination of Dogs Control Rabies?
Alexander Zeissig, Delmar, N. Y.
- 3:45 (41) The Differentiation of Anemias in the Dog.
M. Josephine Denbler, Philadelphia, Pa.
- 4:00 (42) Diseases of the Anal Sacs.
E. P. Leonard, Ithaca, N. Y.
- 4:15 (43) Television—Anal Gland Therapy.
L. R. Barto, Basking Ridge, N. J.
- 4:20 (44) Extirpation of the Anal Gland.
J. D. Wheat, Davis, Calif.
- Adjournment at 4:30 p.m.

Section on Small Animals

Wednesday, June 25, 9:00 a.m.

*Renaissance Room,
Ambassador Hotel*



M. W. Allam, Media, Pa., Secretary

Second Session

- 9:00 (45) The Treatment of Disc Protrusion Paraplegia (Illustrated).
B. F. Hoerlein, Auburn, Ala.
- 9:30 (46) Clinical Aspects of Mastocytoma in Dogs: The Frequency, Regional Involvement, Metastasis, Recurrence, and Differential Clinical and Pathological Diagnosis (Illustrated).
S. W. Nielsen, Boston, Mass.
- 9:50 (47) Television—Demonstration of the Application of the Nonpadded Plaster of Paris and Schroeder-Thomas Splint.
Jacques Jenny, Philadelphia, Pa.
Narrator—J. A. S. Millar, Deal, N. J.
- Nominations for Section Officers.
- 10:00 (48) Convulsions in Dogs, with Some Clinico-Pathological Observations (Illustrated).
J. T. McGrath, J. H. Mark, and J. F. Skelley, Philadelphia, Pa.
- 10:20 (49) Symposium on Canine Hepatitis:
Moderator—J. A. Baker, Ithaca, N. Y.
Clinical Features of Infectious Canine Hepatitis (Illustrated).
J. H. Gillespie, Ithaca, N. Y.
Pathology of Infectious Hepatitis.
W. H. Riser, Skokie, Ill.
Epidemiology of Infectious Canine Hepatitis.
J. H. Mark, Philadelphia, Pa.
Immunological Aspects of Infectious Canine Hepatitis (Illustrated).
G. C. Poppensiek, Ithaca, N. Y.
Summary
H. C. Stephenson, Ithaca, N. Y.
- 11:00 (50) Roentgen Therapy of Small Animal Diseases (Illustrated).
M. A. Emmerson, Ames, Iowa.
- 11:30 (51) Treatment of Chronic Otitis and Surgical Preparation for Aural Cartilage Resection.
H. C. Stephenson, Ithaca, N. Y.
- 11:40 (52) Television—An Operation to Establish Drainage of the External Ear Canal.
C. P. Zepp, Sr., and C. P. Zepp, Jr., New York, N. Y.
Narrator—J. A. S. Millar, Deal, N. J.

Adjournment at 12:00 noon.



J. O. Alberts, Urbana, Ill., Chairman

Section on Poultry

Tuesday, June 24, 1:30 p.m.

22 Club,
Ambassador Hotel

First Session

1:30 (53) Motion Picture.

Opening Remarks by Chairman.
Report of Secretary.

1:45 (54) Transmission of Newcastle Disease and Infectious Bronchitis.
P. P. Levine, Ithaca, N. Y.

2:15 (55) Methods Employed for the Diagnosis and Investigation of
Infectious Bronchitis and Newcastle Disease (Illustrated).
C. H. Cunningham, East Lansing, Mich.

2:45 (56) Flock Vaccination for Newcastle Disease by Atomization of the
B, Strain of Virus.
S. B. Hitchner and G. Reising, Amherst, Mass.

3:15 (57) Immunization Against Newcastle Disease with Killed and
Wing-Web Vaccines.
Julius Fabricant, Ithaca, N. Y.

3:45 (58) Present Status of Infectious Sinusitis of Turkeys.
H. H. Hoyt and B. S. Pomeroy, St. Paul, Minn.

4:15 (59) Chronic Respiratory Disease of Chickens (Illustrated).
Henry Van Roekel and Olga M. Olesink, Amherst, Mass.

Adjournment at 4:30 p.m.

Section on Poultry

Wednesday, June 25, 9:00 a.m.

22 Club,
Ambassador Hotel

Second Session



Henry Van Roekel, Amherst, Mass., Secretary

- 9:00 (60) Complement Fixation: A Review of Its Application in the
Diagnosis of Diseases of Chickens (Illustrated).
R. F. Gentry, East Lansing, Mich.

Nominations for Section Officers.

- 9:25 (61) The Enigma of Avian Leukosis (Illustrated).
G. E. Cottral, East Lansing, Mich.

- 9:45 (62) Fowl Plague as a Possible Threat to the Poultry Industry.
E. L. Stubbs, Philadelphia, Pa.

- 10:10 (63) Factors Involved in the Control of Avian Coccidiosis.
J. P. Delaplane and L. C. Grumbles, College Station, Texas.

- 10:35 (64) The Present Status of the Encephalomalacia Problem in Chicks
(Illustrated).
*Erwin Jungberr, E. P. Singen, and L. D. Matterson, Storrs,
Conn.*

- 11:05 (65) Further Consideration of the Present Status of Poultry Meat
Inspection.
H. J. Stafseth, East Lansing, Mich.

- 11:35 (66) Salmonella Infections in Chickens and Turkeys.
L. C. Heemstra, Beltsville, Md.

Adjournment at 12:00 noon.



Section on Surgery and Obstetrics

Wednesday, June 25, 1:30 p.m.

*Renaissance Room,
Ambassador Hotel*

First Session

N. W. Pieper, Middletown, Conn., Chairman

- 1:30 (67) Motion Picture.
Opening Remarks by Chairman.
Report of Secretary.
- 1:50 (68) Some Diseases of Cattle Requiring Surgical Treatment
(Illustrated).
J. D. Wheat, Davis, Calif.
- 2:15 (69) Television—A Plastic Repair of an Umbilical Hernia in a Calf.
A. G. Danks, Ithaca, N. Y.
Narrator—*C. F. Clark, East Lansing, Mich.*
- 2:30 (70) Hormonal Induction of Lactation in Sterile Cows.
*E. P. Reincke, J. Meites, C. F. Cairy, and C. F. Huffman,
East Lansing, Mich.*
- 3:00 (71) Symposium on Vibriosis:
Moderator—*F. H. Oberst, Manhattan, Kan.*
The Natural Course of Vibrio Fetus Infection in Cattle.
S. H. McNutt and Joseph Simon, Madison, Wis.
Diagnosis of Vibriosis in Cattle.
W. N. Plastring, Storrs, Conn.
Mode of Spread of Infection, Control Measures, and Treatment.
S. J. Roberts, Ithaca, N. Y.
- 3:45 (72) A Blood Bank for Surgical Patients (Illustrated).
R. E. Witter, Urbana, Ill.
- 4:10 (73) Television—Porcine Scrotal Hernia.
J. F. Bullard, Lafayette, Ind.
Narrator—*C. F. Clark, East Lansing, Mich.*

Adjournment at 4:30 p.m.

Section on Surgery and Obstetrics

Thursday, June 26, 9:00 a.m.

*Renaissance Room,
Ambassador Hotel*

Second Session



G. R. Moore, East Lansing, Mich., Secretary

- 9:00 (74) Choosing the Site for Bovine Cesarean Section.
R. W. Westcott, East Lansing, Mich.
- 9:25 (75) Television—Bovine Cesarean Section.
A. E. McChesney, Bozeman, Mont.
Narrator—E. A. White, East Lansing, Mich.
- Nominations for Section Officers.
- 10:00 (76) Bovine Intra-Uterine Medication.
L. R. Newlin, Romeo, Mich.
- 10:25 (77) Some Common Lamenesses of the Standardbred Horse.
A. G. Danks, Ithaca, N. Y.
- 10:50 (78) Symposium on Antibiotics as Preoperative and Postoperative Therapy:
Moderator—F. E. Eads, Detroit, Mich.
Penicillin and the Importance of Blood Level Concentrations.
R. H. Hollis, North Chicago, Ill.
Bacitracin and Terramycin.
R. C. Klussendorf, Terre Haute, Ind.
Tyrothricin and Aureomycin.
S. F. Scheidy, Glenolden, Pa.
- 11:30 (79) Television—Mamnectomy in the Bitch.
C. L. Blakely, Boston, Mass.
Narrator—E. A. White, East Lansing, Mich.

Adjournment at 12:00 noon.

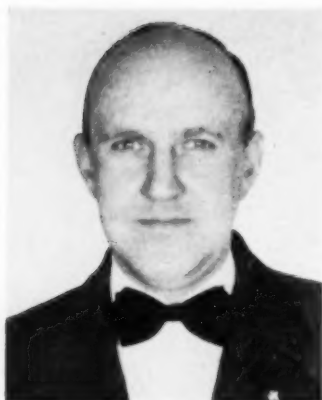
(Please stay for the Closing Session which follows.)

Closing Session

Renaissance Room—Ambassador Hotel

Thursday, June 26, 12:30 p.m.

Installation of AVMA Officers and Women's Auxiliary Officers.
Adjournment.



Oscar Sussman, Princeton, N. J., Chairman

Section on Public Health

Wednesday, June 25, 1:30 p.m.

22 Club,
Ambassador Hotel

First Session

Opening Remarks by Chairman.
Report of Secretary.

- 1:50 (80) An Administrative Review of the Activities of Veterinarians
in the Field of Food Control.
J. O. Dean, Washington, D. C.

Discussions.

E. C. Chamberlayne, Lima, Peru.
Russell McNellis, Washington, D. C.
Daniel Bergsma, Trenton, N. J.
C. D. Carpenter, Chicago, Ill.
H. J. Stafseth, East Lansing, Mich.
M. D. Baum, Denver, Colo.

- 3:00 (81) An Appraisal of the Diseases of Swine and Their Relationship
to Disease in Man by Means of Direct Contact, Ingestion of
Meat or Other Products, and Intermediate Vectors.
R. E. Shope, Rahway, N. J.

Discussions.

Benjamin Schwartz, Washington, D. C.
A. H. Fletcher, Trenton, N. J.
S. L. Hendricks, Des Moines, Iowa.
L. M. Hutchings, West Lafayette, Ind.
S. H. McNutt and T. S. Chow, Madison, Wis.
J. D. Ray, Omaha, Neb.

Nominations for Section Officers.

Adjournment at 4:30 p.m.

Section on Public Health

Thursday, June 26, 9:00 a.m.

22 Club,
Ambassador Hotel

Second Session



R. A. Hendershott, Trenton, N. J., Secretary

- 9:00 (82) A Statistical and Epidemiological Appraisal of the Present-Day Knowledge of Rabies in Dogs and Other Animal Vectors, with Particular Reference to Inapparent Carriers and Vectors.
Raymond Fagan, Kansas City, Kan.

Discussions.

E. S. Tierkel, Atlanta, Ga.
Aurelio Malaga-Alba, Mexico, D. F.
C. R. Schroeder, Pearl River, N. Y.
H. W. Schoening, Washington, D. C.
R. A. Kelser, Philadelphia, Pa.
J. S. McDaniel, Trenton, N. J.
R. B. McClelland, Buffalo, N. Y.
K. S. Young, Austin, Texas.

- 10:30 (83) Biological Effects of Radiation (Illustrated).
A. H. Wolff, Cincinnati, Ohio.
11:00 (84) International Veterinary Medical Programs (Illustrated).
B. D. Blood, Washington, D. C.
11:30 (85) Psittacine Birds and Human Health (Illustrated).
D. L. Coffin, Boston, Mass.

Adjournment at 12:00 noon.

(Those in attendance are requested to go to the Renaissance Room for the Closing Session and Installation of Officers, which follows adjournment of this Section.)

The Commercial Exhibits at Atlantic City

The commercial exhibits at Atlantic City will form the usual colorful parade of products and technical developments which contribute so much to veterinary medical progress and improved services to veterinarians' clients and patients.

Sixty leading companies will occupy 68 booths spanning nearly 15,000 square feet of exhibit space; this attractive convention feature will be more interesting than ever.

The American Veterinary Exhibitors Association, as part of its program of improving this part of the convention and stimulating interest in and inspection of the displays, will again sponsor awards — this year a fine wrist watch will be given to some veterinarian, also one to some veterinarian's wife — whose names are drawn. Details on how to qualify for these prizes will be available at the registration desk.

Abbott Laboratories

Booth 45

Abbott Laboratories will exhibit Sulvetil with penicillin and streptomycin, designed for the treatment of streptococcal or staphylococcal mastitis; Aminosal, a modified fibrin hydrolysate, and Abbocillin 800M, containing 600,000 units of penicillin G procaine and 200,000 units of penicillin G potassium in a 1-cc. dose.

A. S. Aloe Company

Booth 65

The Aloe Veterinary X-ray Unit is featured at the Aloe booth. Here is the ultimate in simplicity, flexibility, and top quality at a minimum price. Also on display will be many other items used in veterinary medical practice.

Americana Corporation

Booth 29

We cordially invite all members and guests of the AVMA to visit our booth 29, where we will have on display the "Encyclopedia Americana", which has been America's supreme authority since 1829, and also the fortieth anniversary edition of the "Book of Knowledge", adapted to recognized principles of public school teaching—the finest reference work in an American tradition.

Ames Company, Inc.

Booth 30

The Ames Diagnostic Kit will be featured. This small kit, measuring 3 x 9 inches, contains Clintest—a test for urine-sugar, Bumintest—a test for albumin, Acetest—a test for acetone, and Hematest—a test for occult blood. No extra reagents, equipment, or accessories are needed. The Ames representatives will be demonstrating these tests.

Armour Veterinary Laboratories

Booth 26

You are cordially invited to visit Armour display showing P.P.L.-Armour (Posterior Pituitary Liquid, Double U.S.P. Strength), Armour Pharmaceuticals, Surgical Gut Sutures, and Armour Anti-Hog Cholera Serum. Medicinal Bone Flour products will also be featured.

Arnold Laboratories

Booth 27

"How to make your dispensing practice profitable" will be the theme of Arnold's exhibit. Also featured will be the "new look" in veterinary pharmaceuticals—a new package and label design to make a more attractive dispensing product. Included also will be Arnold's popular hormones as well as other specialties.

Ashe Lockhart, Inc.

Booth 56

Ashe Lockhart, Inc., will have a new attractive display of the full Lockhart line of biological products for large and small animals, including anti-serums, vaccines, bacterins, toxoids, and diagnostic agents.

Austin Laboratories, Inc.

Booth 21

The Austin Laboratories display will feature Streptazine tablets, the new combined antibiotic and sulfonamide treatment for calf scours . . . and Penrods—penicillin and dihydrostreptomycin bougies for the treatment of bovine mastitis.

Bristol Laboratories Inc.

Booth 63

Bristol Laboratories cordially invites you to visit booth 63. Qualified personnel will be on hand to demonstrate recent developments in the antibiotic field. Among the products to be featured are *Quadricillin*—Procaine Penicillin G in Oil, and *Quadricillin D. S.*—Procaine Penicillin G and Dihydrostreptomycin with Sulfamerazine and Sulfamethazine in Oil.

A. J. Buck & Son

Booth 9

A complete line of equipment will be shown, featuring autoclaves and sterilizers, x-ray equipment including portable, mobile, and table combination units. Also a complete line of x-ray accessories, film, and chemicals; stainless steel work and operating tables; Ullman Rocker Blower dryers, and wire and tape recorders.

California Spray-Chemical Corporation

Booth 13

We will feature an 8 ft.-high by 10 ft.-wide exhibit containing a colorful poster showing a cowboy herding white-faced Herefords. Also, we will have a panel full of pictures showing the use of various Ortho products by dog hospitals, livestock owners, etc. We are scheduling an eighteen-minute, 16-mm. movie entitled "Dairy Insect Control."

Campbell X-Ray Corporation

Booth 33

We will display the X-Ray Animagraph, a complete x-ray plant designed exclusively for veterinary use—Fluoroscopy (moving pictures)—Radiography (still pictures)—Therapy (superficial and contact)—Portable (for work away from hospital). The Animagraph is being installed in the better-grade animal hospitals throughout this country and abroad.

C.S.C. Pharmaceuticals, a Division of Commercial Solvents Corporation*Booth 44*

C.S.C. Pharmaceuticals, a Division of Commercial Solvents Corporation, will display its line of bacitracin veterinary products which includes ointment, topical in vials, and oral tablets.

The Corn States Serum Company*Booth 40*

The exhibit of the Corn States Serum Company will consist of samples of many biological products produced by the company, including specialties; also products of firms that we represent as distributors.

Curts-Folse Laboratories*Booth 1*

Representatives of Curts-Folse Laboratories, pharmaceutical manufacturers since 1918, will display select pharmaceuticals for the veterinary profession, including: Sulfadac, Alkadote, Multi-Scour, Bovidote, Akrocin, Calcinate, Gamfotabs, Bovolative, Dipetin, Atsen, and many others.

Dencolo Corporation*Booth 17*

Dr. Frank's Fetal Extractor will be exhibited and a warm invitation is extended to all to visit the Dencolo booth.

Dermik Pharmacal Co., Inc.*Booth 19*

In obstinate and recurrent skin conditions, Zetar (concentrate) . . . for the preparation of antipruritic, antiseptic and antiparasitic solutions, of value in the treatment of fungous infections, eczema, sarcoptic mange, ringworm, generalized pruritus, etc. . . . for abundant suds which leave the skin soft and supple, hair smooth and lustrous—"Zetar Shampoo."

Doho Chemical Corporation*Booth 14*

Doho Chemical Corporation is pleased to exhibit Auralgan, the ear medication for the relief of pain in otitis media and removal of cerumen; Rhinalgan, the nasal decongestant which is free from systemic or circulatory effect and equally safe to use on infants as well as the aged; and the New Otosmosan, the effective, nontoxic ear medication which is fungicidal and Bactericidal (gram negative-gram positive) in the suppurative and aural dermatomycotic ears. Mallon Chemical Corporation, subsidiary of the Doho Chemical Corporation, is also featuring Rectalgan, the liquid topical anesthetic for relief of pain and discomfort in hemorrhoids, pruritus, and perineal suturing.

Encyclopaedia Britannica, Inc.*Booth 38*

This exhibit will feature a complete set of "Encyclopaedia Britannica" in the new 1952 edition, by far the most comprehensive in the last twenty-five years. The new unabridged "Britannica World Atlas" will also be dis-

played. A comprehensive ten-year program, including two services of unusual importance and value, will be offered on an unusual basis to convention visitors.

Fromm Laboratories, Inc.

Booth 67

Specialized Canine biologics will be featured, including Canine Distemper Vaccine (Chick Embryo Origin), Bivalent Serum, and Hepatitis Vaccine.

Goshen Laboratories, Inc.

Booth 32

This display will include products of Goshen's own manufacture as well as Ciba's Coramine, DiOvocycin, Perandren, Peristaltin; Eaton's Furacin and Furaspor; Americaine ointment and liquid and Chlorothelia ointment and solution; Pyroxylin plastic mesh and suture; Associated Concentrate's Lecipet; and Lethalaire.

Haver-Glover Laboratories

Booths 41 and 42

Haver-Glover invites you to visit booths 41-42 where many new items will be on display, along with the regular H-G line of pharmaceuticals and biological products. Then, as usual, there will be a representative display of surgical instruments and equipment.

The sunporch (left) of the Ambassador Hotel (AVMA headquarters), Atlantic City.



Hill Packing Company*Booth 16*

Veterinarians attending the 89th Annual Convention are invited to bring interesting or problem case reports occurring in small animal practice to the Hill Packing Company booth for discussion with Dr. Mark L. Morris, author of Prescription Diet Bulletin Service. A new feature will be the "Question Box" with prizes for suggestions for "Improving Prescription Diets." (New clients' literature will be displayed.)

Kasco Mills, Inc.*Booth 5*

Kasco Mills, Inc., Waverly, N. Y., and Toledo, Ohio, America's fastest growing dog food company, will be represented by their now famous animated display featuring "Snootie," the pup who demonstrates "If you give a dog his choice, he'll choose Kasco."

Kellogg Company*Booth 35*

The Kellogg Company, Battle Creek, Mich., will feature a display of their three forms of Gro-Pup Dog Food—Ribbon, Flaked Meal, and Pellets. Kellogg's Gro-Pup Ribbon and Meal Form Dog Foods carry the AVMA and AAHA Seal of Approval as Maintenance Foods.

Kirschner Manufacturing Company*Booth 57*

We will be displaying our complete line of modern fracture equipment designed for veterinary use. Among other new instruments which will be shown will be a new pin cutter for cutting intramedullary and fixation pins. We invite all in attendance to visit our booth.

J. B. Lippincott Company*Booth 53*

J. B. Lippincott Company presents, for your approval, a display of professional books and journals. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than one hundred years of traditionally significant publishing.

Lloyd Brothers, Inc.*Booth 25*

This display will feature new products indicated in the treatment of various parasitic infestations of small and large animals. In addition, we shall be glad to explain methods of control in ketosis and mastitis with Lloyd Specialties. We will welcome a visit from each member in attendance.

The S. E. Massengill Company*Booth 61*

The S. E. Massengill Company cordially invites all AVMA registrants to visit their booth. Selected veterinary pharmaceuticals backed by fifty-five years of manufacturing experience will be on display.

Merck & Co., Inc.

Booth 68

This is a scientific exhibit illustrating the presently known physiologic effects of cortisone in the animal body. Material describing the clinical use of this substance in veterinary medicine and some discussion of its potentialities will also be presented.

Motorola, Inc., Communications & Electronics Division

Booth 18

Motorola will display FM two-way radio in its application to veterinary practices. To be featured is the 60 W. Central Station Transmitter and Receiver, 30 W. Unichannel and 30 W. Sensicon mobile transmitters and receivers, 10 W. Mobile transmitter and receiver, the Isoplane Antenna and "Handie-Talkie"® FM two-way radiophone.

Nicholson Manufacturing, Inc.

Booth 59

New and Specialized Instruments for use in large animal practice will be on display.

Parke, Davis & Company

Booth 60

Members of the Parke, Davis & Company Department of Veterinary Medicine will be on hand to discuss their broad-spectrum antibiotic Chloromycetin. Other featured specialties will be S-R, S-R-D, Benadryl, ADC Drops, Dilantin Sodium, ABDEC Drops, and Liquid Germicidal Detergent. Literature will be available.

Chas. Pfizer & Co., Inc.

Booth 66

Terramycin, newest of the broad-spectrum antibiotics, forms a dramatic central feature of the display of Chas. Pfizer & Co., Inc., Brooklyn, N. Y. The newest dosage forms of Terramycin are exhibited and indications for use are described.

Ralston Purina Company

Booth 64

The Ralston Purina display will visualize the mutual importance of nutrition and disease control and how this message is being carried to farmers—the clients of Veterinarians and customers of Purina.

Schenley Laboratories, Inc.

Booth 34

Schenley Laboratories, Inc., one of the world's largest prime producers of penicillin and streptomycin, will feature veterinary products designed exclusively for use by graduate licensed veterinarians. Products such as Syncrobin, penicillin, and penicillin/streptomycin ointments for udder instillation, procaine penicillin G in oil, and other antibiotic and veterinary specialties will be displayed.

Sharp & Dohme, Inc.*Booth 28*

Pharmaceutical and biological products of interest to both large and small animal practitioners will make up the Sharp & Dohme display. Attention will be focused on special dosage forms of various sulfonamides and antibiotic drugs, 'Lyovac' Brucella Abortus Vaccine (desiccated), and other lyophilized preparations.

R. J. Strassenburgh Co.*Booth 20*

Capralan, a new healing fungicidal and bacteriostatic agent, will be featured. Well-informed representatives will be in attendance to demonstrate the properties and uses of Capralan and other recent developments of Strassenburgh research.

Swift & Company*Booth 54*

Swift & Company will again have a colorful and informative display at the Association's Annual Meeting. The exhibit will feature Canned Pard and its new Dog Food recently introduced, Swift's Pard Meal.

The Upjohn Company*Booth 39*

The Upjohn Company will exhibit pharmaceutical and antibiotic products in Booth 39. While the products exhibited will be of a general-usage nature, we will emphasize the new veterinary hormonal product, E C P, which is useful in the treatment of breeding difficulties in both farm and pet animals. A complete line of antibiotic products will be featured with particular emphasis on the use of neomycin sulfate in the treatment of bovine mastitis. Appropriate samples and an interesting assortment of literature will be available on a gratis basis. We cordially invite you to visit the Upjohn booth.

Veterinary Medicine*Booth 3*

Veterinary Medicine will display some of its recent issues and the value of this medium for practitioners. All veterinarians are invited to examine samples of the monthly publication, as well as newer veterinary textbooks that recently have been made available.

Vitamineral Products Co.*Booth 31*

The Vitamineral Products Company's exhibit at the 1952 AVMA Convention will be a large white stand displaying literature and samples pertaining to the minerals and vitamins made by us for the use of veterinarians.

The Warren-Teed Products Company*Booth 43*

Warren-Teed Veterinary Products have been designed to meet the most exacting requirements of your Veterinary practice. You are cordially

invited to visit our display booth 43, which will feature Myotal. Myotal represents a new approach to the problem of general anesthesia in small animal practice, affording smooth induction, ideal relaxation, and smoother recovery.

Wilson & Co., Inc.

Booth 48

To dog nutrition, amino acid balance is important. Balamac is the principle of BALANCED AMINO ACIDS as attained in Ideal Dog Food. Every structure of the dog's (or cat's) body requires balanced amino acids, which we attain with the Balamac principle by which Ideal Dog Food alone is processed. Ask for free handbook on amino acid at our exhibit.

Wisconsin Alumni Research Foundation

Booth 62

Two products will be shown. Warfarin, the new type rodenticide, which has been used so successfully for the past two years, will again be shown. A new type of product for the prevention of calf scours will also be on exhibition. This product, Plasmylac, is an immunological approach to this problem. Literature will be available on both warfarin and Plasmylac.

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At JOURNAL press time, the following exhibitors had not submitted descriptions of their displays; these will, however, be published in the official program:

Baltimore Wire & Iron Works, Desitin Chemical Company, S. F. Durst and Company, Inc., Fort Dodge Laboratories, Inc., General Foods Company (Gaines Division), Jensen-Salsbery Laboratories, Miles Laboratories, Inc., Norden Laboratories, Pitman-Moore Company, Quaker Oats Company, Rystan Company, Inc., Syracuse Pharmacal Company, U. S. Vitamin Corporation, Winthrop-Stearns, Inc., and Coreco Research Corporation.

Scientific Exhibits

There will be several scientific exhibits at the Atlantic City convention, but descriptions had not been received at time of going to press. Among these exhibits will be one by the American Medical Association on "Animals in Research"; one by the Armed Forces Institute of Pathology on "The Pathology of Total Body Radiation in Dogs Exposed to an Atomic Explosion"; one by the Veterinary Division, Army Medical Service Graduate School, on "Leptospirosis"; one on "Fur-Bearing Animals" by the Department of Anatomy, Ontario Veterinary College; and one on "The Epidemiology of Anthrax," by the Veterinary Public Health Section, U. S. Public Health Service.

Additional information about these and other scientific exhibits will be published in the June JOURNAL and the official program. Three awards will be made again this year for the most outstanding exhibits.

CLINICAL DATA

Bovine Leptospirosis in Georgia

Wm. L. SIPPEL, V.M.D., M.S.; C. I. BOYER, Jr., V.M.D.; E. E. CHAMBERS, D.V.M.

Tifton and Rossville, Georgia

SEVERAL CASES of bovine leptospirosis have been reported in American veterinary literature since 1944. It is the purpose of this paper to record the isolation of the organism from beef cattle and the first recognition of the disease in Georgia.

The disease has been reported from Connecticut,¹ Montana,² Texas,³ and Illinois,⁴ where the diagnosis was made by clinical symptoms and demonstration of Leptospira-like structures in silver-stained sections. Baker and Little,^{5,6} Little and Baker,⁷ Reinhard, Tierney, and Roberts,⁸ and Little, Beck, and McCahon⁹ have reported isolation of Leptospira organisms from dairy herds in New Jersey, New York, and Pennsylvania. The disease has also been reported from Russia, Palestine, and Australia.

HISTORY OF OUTBREAK

The purebred Hereford herd in question was attended by one of us (E.E.C.). During February, 1951, seven abortions occurred in this herd and were diagnosed as due to vitamin A deficiency which had been seen in typical form on several other farms in the area. Two additional abortions occurred during March. In the first half of April, the 360 animals in this herd were tested for brucellosis. All were either negative or young animals whose reaction was assumed to be due to calfhood vaccination.

Also during April, 2 sick cows were found that were treated within an hour but died a few hours after treatment. The first cow was given calcium gluconate and the second was given penicillin. Symptoms shown by these animals were: normal temperature and respiration, pale color of the teats, and icteric mucous membranes. Autopsy of the first cow revealed ecchymotic hemorrhages under the skin, on the heart, and a somewhat yellow appearance of the abdominal fat. The second animal had extensive hemorrhages under

the skin and all tissues were icteric. Blood films from these animals were sent to two different laboratories to be checked for anaplasmosis. Both reports were negative.

On April 17, 1951, assistance was sought from the Georgia Coastal Plain Experiment Station and a clinical diagnosis of bovine leptospirosis was made. At this time, 24 cattle had aborted. Blood samples were obtained from 26 animals and divided for tests for brucellosis, vibriosis, and leptospirosis. All were negative for brucellosis and only one was positive for vibriosis. Samples were tested for evidence of leptospirosis by the Georgia Coastal Plain Experiment Station Laboratory using the agglutination-lysis test, and by Dr. Charles J. York at Cornell University, using the complement-fixation test. Dr. York reported 23 samples positive, two negative, and one insufficient sample. Duplicate tests run by both laboratories on five samples were in agreement.

The abortions in this herd occurred as follows: two during the sixth month, seven during the seventh month, 12 during the eighth month, and three during the ninth month of gestation. Only a few abortions occurred after April when strict isolation and segregation was instigated. The abortions seemed to occur ten days to two weeks after the cattle were assembled for dipping, blood testing, pregnancy examination, or for some other cause were put together in a chute.

The calves that were aborted were all dead. They had one characteristic lesion: The navel cord was large, watery, and edematous. It was ruptured close to the calf and the umbilical opening was unusually large. If these calves had lived, they would have been predisposed to umbilical hernia. Several of the cows aborted near term and many large, healthy appearing cows lacked the strength to expel the fetus.

An autopsy was performed on 1 calf that died shortly after birth. Hemoglobinuria had been noticed in this calf. It had some of the post-mortem lesions of leptospirosis as seen in the dog, such as subcutaneous hemorrhage, intense icterus of all tissues, and a uremic-like odor.

LABORATORY PROCEDURES

Blood samples from several cows were obtained at the time of the first visit. Serum from one of these cases gave an agglutination-lysis titer

Drs. Sippel and Boyer are from the Department of Animal Diseases, Georgia Coastal Plain Experiment Station, Tifton; Dr. Chambers is a practitioner in Rossville, Ga.

Contribution of the Department of Animal Pathology, Georgia Coastal Plain Experiment Station. Published with the approval of the resident director as Journal Series Paper No. 1.

of 1:32,000 using five-day-old cultures of *Leptospira pomona* in Schuffner's medium.⁶ Several of the recently aborted cows had an increase in titer when tested at a later date.

Two weanling guinea pigs were inoculated intraperitoneally with blood and 2 with urine from each of 4 affected animals in the herd. Daily body temperatures taken of these laboratory animals did not show a rise above 104 F. Three weeks after inoculation, these animals were killed and the supernatant fluid of a 10 per cent suspension of portions of the livers, spleens, and kidneys were inoculated intraperitoneally into 3 additional young guinea pigs. These animals had temperature rises above 104 F.: 2 on the fourth day after inoculation, and 1 on the fifth day. Heart blood was drawn from them at this time and inoculated into Schuffner's and Chang's mediums. The animals were destroyed and organ suspensions were prepared on the fifth day following inoculation and passed serially in young guinea pigs, the heart blood being cultured in one or both of the above mediums when the temperature rose above 104 F. After two passages in guinea pigs, the temperature rise occurred with regularity on the fourth day, although one rise was observed on the third day and several on the fifth day.

Autopsy lesions seen in the guinea pigs were small yellowish spots on the liver, about 0.5 to 1.0 mm. in diameter, and hemorrhages on the lungs. One animal had petechial hemorrhages on the kidneys.

An organism⁶⁶ morphologically indistinguishable from *Leptospira* on dark field examination, and that reacted in high titer with the serums of affected cows from this herd in agglutination-lysis tests, was isolated from heart blood cultures of several of the inoculated guinea pigs.

A culture of the organism that had been recovered from guinea pigs inoculated with material from the affected cows was reinoculated into susceptible calves. One calf (J-2, 4 months of age) was given 1 cc. subcutaneously, and the other (L-28, 3 months of age) 1 cc. intraperitoneally, of a seven-day culture in Schuffner's medium. The calf inoculated intraperitoneally had a temperature rise to 105.2 F. on the third day postinoculation. At this time, it had a copious nasal mucous discharge which lasted only a few hours and was accompanied by a diarrhea containing flecks of mucus, lasting the same length of time. The calf inoculated subcutaneously had a temperature of 104.4 F. on the fourth day. It was elevated for three days but returned to normal on the seventh day. This calf had no visible symptoms.

Blood was taken from calf L-28 at the time of the initial temperature rise and inoculated into

Schuffner's medium and young guinea pigs. These animals had temperature rises above 105 F. on the fifth day, and a *Leptospira* organism was isolated from their heart blood at this time by culture in Schuffner's medium. The organism was also recovered from the Schuffner's medium inoculated with the blood of calf L-28. Agglutination-lysis tests on the serum of this calf and calf J-2 taken seven days after inoculation showed no demonstrable antibody titers. Blood serum taken from these 2 calves about four weeks later showed partial agglutination in a titer of 1:2,000 against the *L. pomona* from Cornell and partial agglutination in a titer of 1:8,000 against the *L. pomona* isolated from the herd in question. It should be borne in mind that young animals may be unable to develop antibodies. Reinhard⁶ studied 10 infected calves under 3 months of age, of which only 1 developed a titer, and that only 1:50. This fact will hamper control of this disease.

In an attempt to enhance the susceptibility of guinea pigs for this organism, we performed splenectomies on 2 mature guinea pigs and inoculated them with a culture of *L. pomona* that had been maintained on artificial mediums for some time. Neither the splenectomized guinea pigs nor a normal one of comparable weight showed temperature rises or other symptoms following inoculation with this organism.

METHOD OF SPREAD OF ORGANISM

As pointed out by Reinhard *et al.*,⁶ there is usually a history of the recent introduction of cattle to the herd preceding an outbreak. The carrier animal, therefore, seems to be the source of much of the trouble. Baker and Little⁵ demonstrated organisms in the urine of a calf fifty-three days after acute symptoms subsided. These authors suggest the likelihood of the organisms being spread in droplets of urine following urination by cows on concrete floors, resulting in an intranasal inoculation of susceptible animals.

The role of insects, ticks, rodents, or other animals in spreading the disease or serving as a reservoir of infection is unknown.

Matthews states that in one of his affected herds, the disease appeared only in cattle on two flatland pastures and not in those on adjoining mountainous pastures. The part played by water in the spread of the disease should be considered. Canal water in European countries is a known source of leptospirosis or Weil's disease of human beings, probably due to contamination by rats.

Thus, it is seen that the disease appar-

⁶⁶Furnished by Dr. York of Cornell University and Dr. Martha Ward of the U. S. Public Health Service.

⁶⁶This organism was typed for us by Major W. S. Gochoenour, Jr., of the Veterinary Division, Army Medical Center, and identified as *Leptospira pomona*, for which our appreciation is expressed.

ently spreads by direct and indirect contact between animals, the carrier animal being important not only in spreading the disease but probably also serving as a reservoir of infection.

SYMPTOMS

The clinical picture described by various authors varies widely.

In experimentally produced cases by Baker and Little,⁵ cows inoculated subcutaneously showed fever after an incubation period of seven to nine days. The milk yield dropped, the milk became thickened, yellow in color, and contained flakes that represented collections of leukocytes. Blood was not seen in the milk in these experimental cases. Natural cases described by Little, Beck, and McCahon⁶ from seven affected herds revealed "fever, anorexia, depression, abortion and a thick, viscid, yellowish secretion from a soft and limp udder. Hemoglobinuria was observed in over 50 per cent of the clinical cases." In addition to the above symptoms, some cows aborted, while others aborted without becoming severely sick. Three affected cows had bloody milk, 2 died and 1 was killed. These were the only cattle that became icteric or had bloody secretion from the udder. These authors also indicate that blood in the milk is a more constant abnormality in some cases and that, in their experience, hemoglobinuria occurred more frequently in younger animals.

Little and Baker⁷ describe severe and mild forms. In the severe form, death usually occurs in two to ten days. The onset is sudden with a fever of 103 to 107 F., depression, anorexia, dyspnea, and a marked reduction in milk yield. The mucous membranes become pale and icteric. The udder is soft and pliable, and the milk is thick with a pink, red, or brownish tinge, occasionally containing flecks of blood. The condition of the udders is considered of diagnostic significance by these authors. Reinhard *et al.*⁸ reported udders that were hard but not inflamed. Pregnant animals are likely to abort early or during convalescence. Hemoglobinuria is often seen in the severe form.

Little and Baker⁷ described the mild form as similar but less severe, lasting two to four days. They state, "In some cows, steers, and bulls, the rise in temperature

and the hemoglobinuria are the only clinical signs of infection observed."

Matthews³ observed the disease in several herds in Texas. He noted elevated temperatures and a nasal discharge of thin mucus which became mucopurulent and spread over the muzzle and turned dark and scaly. Diarrhea was present in some cases. From this early clinical picture, the animals progressed to one of three forms. The mild form, representing about 75 per cent of the cases, consisted of fever usually accompanied by diarrhea, poor appetite, and marked weight loss. The acute fatal form was marked by hemoglobinuria and hemoglobinemia from the onset, animals dying in forty-eight to seventy-two hours. Matthews also described a chronic form, some of which showed a transitory hemoglobinuria. "In this group, the diarrhea of the early stages remained constant for weeks or until death." He also noted gradual emaciation in spite of adequate consumption of feed. Frequent urination with dribbling of urine was generally observed. Abortion represented a mild form of Matthews' cases, since there were usually no serious after-effects following expulsion of the fetus.

DISCUSSION

It will be noted that leptospirosis in cattle presents a wide variety of symptoms but, as Reinhard¹⁰ points out, "consideration and integration of all findings in the animals involved in an enzootic will enable the veterinarian to diagnose this disease with a high degree of accuracy." However, the mild form of the disease may occasion some difficulty in diagnosis. Serological tests will be of great assistance to the practitioner. The symptoms shown by the beef cattle in this outbreak differ markedly from those revealed by dairy cattle in outbreaks previously described by other authors. This outbreak is more like some described by Mathews³ in beef cattle in which abortion was an outstanding symptom. Certainly, leptospirosis should be considered in cattle showing anemia, icterus, and hemoglobinuria, and in dairy cattle with soft, limp udders yielding a thick, viscid, yellowish or blood-tinged secretion. Leptospirosis must be added to the list of diseases causing abortion.

In considering differential diagnosis, at-

tention should be given to anaplasmosis, bracken fern poisoning, redwater disease, and trichlorethylene-extracted soybean oil meal poisoning. It has been pointed out by Cooper¹¹ that *Clostridium hemolyticum* infection (redwater) has been found in areas outside of the mountain valleys of certain western states, the only place it was formerly recognized. He also indicates that *Clostridium perfringens* type D has been isolated from cattle showing redwater disease in California.

Various authors have indicated that it is necessary to use young guinea pigs or hamsters for recovery of the *Leptospira* organism from cattle. Blood should be obtained from infected animals during the acute febrile phase of the disease and inoculated into these laboratory animals. Urine from animals in the chronic stage of the disease can also be used in efforts to isolate *Leptospira* by animal inoculation.

Leptospira organisms seem to be extremely delicate and will not stand refrigerator temperatures for any appreciable time. Attempts to recover the organism should be made by taking laboratory animals to the farm for inoculation with material from affected cattle. Laboratory assistance is necessary to establish a positive or presumptive diagnosis. Except in rare cases, this help will have to be serological tests, as laboratory animal inoculation is not a practical routine procedure.

Serological evidence was obtained of *Leptospira* infection using the agglutination-lysis test in two additional herds of beef cattle where the attending veterinarians suspected leptospirosis. Little and Baker⁷ consider complete agglutination or lysis at 1:200 as the critical titer. In all of our herds, titers much higher than this have been reached. A serological diagnosis in an outbreak of leptospirosis is on a much sounder basis if a significant rise in titer is noted in an affected animal after an interval of two or three weeks.

TREATMENT

No controlled laboratory studies on treatment of leptospirosis in cattle have been reported. It has been suggested¹² that terramycin or aureomycin might be used. Practitioners have reported successful use of sodium cacodylate and large doses of penicillin or streptomycin in cattle showing hemoglobinuria and icterus. A definite di-

agnosis of leptospirosis was not made in these cases. As pointed out by Reinhard *et al.*,⁸ a drug that can be used economically to rid the kidney of the organism is definitely needed to control the carrier state.

CONTROL

Control methods for this disease have not been well worked out as yet. Present recommendations are based on our knowledge of the means of spread of the disease and general infectious disease control procedures.

As already indicated, the organism becomes established in the kidneys and many new infections probably arise by spread of the germ in droplets of urine. For this reason, in herds where the disease is suspected, cattle should be kept in small groups and in large pastures. They should be brought together in close confinement, as for dipping and vaccination, as little as possible. As the organism is in the blood stream during the acute febrile phase of the disease, the usual precautions to prevent spread by instruments such as needles and dehorners should be practiced. The role of insects in the spread of this disease, if any, is not known; however, control of flies and ticks is probably indicated.

In adding new animals to the herd, an attempt should be made to ascertain if the infection has existed in the herd of origin of the new animal. The animal should be isolated from the herd for thirty to sixty days (this should be routine for all new animals) and a blood sample should be submitted for serological examination. If the sample is positive, the animal may not be actively infected, but the safer thing to do is to treat it in an attempt to rid the kidney of any possible infection. As mentioned previously, the drug of choice has not yet been indicated. However, Brunner and Meyer¹³ have shown that streptomycin and aureomycin¹⁴ are highly effective in eliminating *Leptospira canicola* and *Leptospira icterohaemorrhagiae* from the kidneys of dogs and hamsters. Terramycin, chloromycetin, or any drug shown to be effective against *L. pomona* could be tried. Future research may show that isolation for a specified length of time will enable an animal to spontaneously overcome kidney infections.

The complement-fixation test is better adapted to routine testing than the

agglutination-lysis test. It is hoped that experience will prove it to be reliable and practical, as serological testing must play an important part in the control of this disease.

CONCLUSIONS

An organism identified as *Leptospira pomona* has been recovered from an outbreak of disease in cattle in which the principal symptoms were icterus, anemia, and abortion.

This organism produced symptoms typical of a mild form of the disease in an experimental calf inoculated intraperitoneally.

The first proved diagnosis of leptospirosis in cattle in the Southeast has thereby been made.

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Foot-and-Mouth Disease Situation in Canada and Mexico

At the request of the Canadian Government, the Bureau of Animal Industry has sent a representative to collaborate in the foot-and-mouth disease eradication work in Canada. Dr. R. J. Mulhorn, who spent nearly five years in Mexico as a district supervisor and assistant to the co-director of the Joint Mexican-United States Commission for the eradication of foot-and-mouth disease, was assigned to this new duty.

The Bureau has also strengthened its enforcement of inspection and quarantine regulations at the Canadian border. Roving border patrols, under the direction of inspectors at Olympia, Washington, Helena, Montana, Bismarck, North Dakota, and St. Paul, Minnesota, are on duty from Lake Superior to the Puget Sound.

Six other quarantine enforcement inspectors will soon patrol the Great Lakes shipping which is just beginning the heavy spring and summer traffic.

The Mexican-United States Commission for the eradication of foot-and-mouth disease has announced that no cases of the disease were found during March, 1952. The present *aftosa* campaign will end, and the embargo on Mexican cattle will be lifted on September 1, this year, if no more cases are found. Therefore, the people are being urged to cooperate by reporting sick animals so they may be inspected immediately. About half of the 57,625 herds, in which sick animals were found during March, were those reported by the Mexican people. None were *aftosa* cases. This is about twice as many as were thus reported in February and such cooperation is considered to be very encouraging.

Rinderpest in Wild Ruminants.—An Indian Zoo reports an outbreak of rinderpest among barking deer, hog deer, black buck, four-horned antelope, neelghai, spotted deer, and sambhar. Since the disease lasted about three months, the mortality struck a high of 50 to 100 per cent. The outbreak was caused by importation of fodder grass from outside. Transmission experiments and immunity tests confirmed the diagnosis.—*Abstr. in Vet. Bull., Jan. 1952, from Indian J. Vet. Sci., 19, 219-224.*

Transmissible Gastroenteritis in Swine—Field Herd Studies

W. W. BAY, D.V.M., M.S.

Lafayette, Indiana

TRANSMISSIBLE gastroenteritis has become a major cause of baby pig losses in the densely populated swine-producing areas of the United States. For the last few years, it has been increasing in incidence and severity in the midwestern states. It has caused the loss of thousands of baby pigs. Its relationship, if any, to other enteric disorders in swine and other livestock and human beings has not been established.

This report deals with 37 naturally infected herds comprising 7,172 pigs that were reported to our laboratory during the spring of 1951. These figures do not represent the incidence of transmissible gastroenteritis in Indiana during this time, since only a small portion of the swine difficulties are referred to us. In each case, the herd was visited during the acute outbreak and was again visited or contacted following the natural course of the disease in the herd. After the fall farrowing, they were again checked for recurrence of the disease in the herd.

OBSERVATIONS

The most common symptoms observed in the baby pigs on the farms were: diarrhea, vomiting, dehydration, emaciation, and high mortality. Figures 1 and 2 show the same litter before and after infection. On some of the farms, the sows were sick, while on others they were not. The most common symptoms observed in sows were: diarrhea, vomiting, agalactia, some loss of weight, and a lack of appetite. The sows usually appear normal in three to ten days, and nearly all of them recover.

The most common lesions on postmortem examination in the baby pigs were: atonic intestine with fluid contents varying in color from whitish to yellowish green, degenerated kidneys which may or may not contain urates, gastritis, enteritis, and congested mesenteric blood vessels (fig. 3). Not all of the above symptoms and lesions were seen in each pig.

On some of the farms, transmissible gastroenteritis spread to feeder hogs. The symptoms seen in these hogs were the same as in sows: diarrhea, loss of appetite, some loss of weight, followed by complete recovery in three to ten days.

Although this disease has been reported as a community disease in some swine-producing areas, it was not until the spring farrowing season of 1951 that it was observed as such in Indiana. In one small community, 12 herds were affected. About 1,000 pigs were involved and 250 died. Of the pigs less than 10 days of age, about 90 per cent died. Only 1 sow died in this outbreak. Some feeder swine were affected. The economic loss in these swine was due to the profuse diarrhea and inappetence which persisted in some cases for ten days.

None of the treatments, vitamins, sulfamethazine, aureomycin, penicillin, and B 12, given to these herds, were of any value. Since the natural course of the disease in adult swine is three to ten days with spontaneous recovery, a misleading impression of the value of therapy may result unless the nature of the disease is kept in mind. Transmissible gastroenteritis did not recur in any of the herds during the fall farrowing.

The procedure which saved most of the young pigs was the movement of sows yet to farrow to clean premises in clean houses. This procedure has its limitations and is not necessarily successful in each case.

Of the 7,172 pigs that were observed on the 37 farms, 4,214 (58.7%) died of transmissible gastroenteritis. Most of these pigs died during the first ten days of life. Of the 2,958 (41.3%) pigs that lived, 944 were born two to eight weeks following the acute outbreak and were never sick. Thus, 67 per cent of the pigs on these farms that were affected with transmissible gastroenteritis died. About 1,350 (67%) of the pigs that recovered were 10 days to 6 weeks of age when they became affected, and the remaining 33 per cent were less than 10 days of age.

On several farms, there was some sug-

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gestion of the production of immunity in sows which recovered from the disease. Sows that had been sick and had recovered three weeks or more before they farrowed gave birth to normal litters, even when the

were born, died. Two to three weeks following the recovery of the pregnant sows, the losses stopped and all pigs born thereafter remained well, even though the same farrowing house was used. Of 500 pigs



Fig. 1—A normal litter of pigs.

pigs were born in the same quarters and, in some instances, in contact with sick pigs.

FOUR TYPICAL HERDS

Sows in herds 1, 2, and 3 farrowed twice each year. In herds 1 and 3, the farrowing was distributed over four months. In herd 2, all of the pigs were farrowed during three weeks. In herd 4, 40 to 60 sows farrowed each month throughout the year.

Herd 1.—Transmissible gastroenteritis

farrowed on this farm, 100 died.

Herd 2.—On this farm, 110 of 162 pigs 2 to 7 days of age died of transmissible gastroenteritis. Two sows that were sick during the initial outbreak farrowed three weeks later. Their pigs did not become sick. The owner then purchased 118, 2-week-old pigs. Within three days they had transmissible gastroenteritis and 33 died.

Herd 3.—The disease began in 10-day-old pigs that had recently been moved to past-



Fig. 2—The same litter shown in figure 1 three days after exposure to transmissible gastroenteritis.

developed in pigs 2 weeks old, spread to younger pigs in the farrowing house, and then to the sows yet to farrow. During the acute part of the outbreak, which lasted for about ten to twelve days, all pigs which

ure. A neighboring farmer lost almost all of his pigs within a week of farrowing. No diagnosis was made in this neighboring herd, but the symptoms described were typical of transmissible gastroenteritis.

Five days after the outbreak started in herd 3, the disease spread to the farrowing house. It then spread to 200, 60-lb. shoats and 55 gilts.

All of the pigs in 30 litters farrowed during the acute outbreak died. In addition, 130 of 280 pigs 10 days to 2 weeks of age died. The owner was then advised to sell enough sows to give a four- to six-week break in the farrowings. Thirty-six sows were sold. Beginning one month later, 20 gilts farrowed in the same farrowing house used by the sick pigs with no difficulty. All of the adult swine in this herd were sick during the course of the disease.

Herd 4.—On this farm, 40 to 60 sows farrowed each month. The owner reported that 150, 2- to 3-week-old pigs became sick with transmissible gastroenteritis on March 4, and by March 7, it had spread to 60, 10-day-old pigs all of which were on pasture. On March 10, it was affecting pigs in the farrowing house. It then spread to 200 pigs 6 to 10 weeks old 1 mile from the farrowing house. In each case of spread, the owner unsuccessfully attempted to contain the infection by placing separate caretakers with each group of swine. On March 18, the farrowing houses were cleaned with live steam and disinfected. Sows to farrow were brought in immediately, and within three days all pigs farrowed were ill.

The owner was then advised to farrow some of the litters in individual houses and assign a separate attendant to this group. These pigs became sick within two weeks of birth. There was one undesirable feature about the movement of the personnel on this farm during the outbreak. Three times each day all of the herdsman met at a central point; this may explain the spread to the various groups of swine. There were about 400 pigs lost from this herd during the month of March. The owner was then advised to sell all the sows due to farrow during April. The sows were sold and the purchaser was told of the status of the herd. The new owner of the sows raised only 3.5 pigs per litter.

After selling the sows, the farrowing quarters were cleaned and left vacant until the May farrowing began. The May and June litters escaped the disease and averaged 8.5 pigs per litter at weaning.

DISCUSSION

The observations reported here point out the inefficiency of any known plan of control that works under all circumstances. In



Fig. 3—Transmissible gastroenteritis-infected pig showing some congestion of the stomach and intestine and atonic intestine filled with fluid.

small herds, where good control of the personnel is possible, isolation of the sick animals has proved a worthy procedure. It is usually advisable to scatter the non-infected litters and the sows to farrow over as large an area as possible, in order to minimize spread from litter to litter, if any one litter becomes sick. Modifications of the above procedure have been used in herds that farrow during four to six months of the year. However, if a large number of sows are yet to farrow after the infection begins, the sale of enough animals to give a four- to eight-week break in the farrowings appears to be the most effective way of stopping losses. This is especially true in herds that farrow the year round.

Although several treatments for transmissible gastroenteritis have been suggested, we failed to obtain experimental evidence that any of those tried have much, if any, merit. It may be that certain products benefit pigs already recovering.

On the basis of experience, we have advised herd owners to keep the affected sows and breed them for the next farrowing season. The disease did not recur on any of the farms under observation during the fall farrowings. In only one case have we seen the disease recur on the same farm at the next farrowing season, where spring and fall farrowings were practiced and where there was a definite break between farrowing seasons. This does not, however entirely eliminate the possibility of carrier animals.

Observations made thus far suggest the possibility that sows which have recovered from the disease may develop some immunity and are better risks on affected farms than new susceptible gilts or sows. This point, however, needs further study.

SUMMARY

1) The most common symptoms observed in baby pigs affected with transmissible gastroenteritis were: diarrhea, vomiting, dehydration, and high mortality.

2) The most common symptoms observed in adult swine were: diarrhea, vomiting, some loss of weight with recovery in three to ten days. The mortality in older swine has been low.

3) None of the various treatments used were of value.

4) The disease was observed for the first time in Indiana in epizootic form.

5) In several herds, there was a suggestion that some immunity was produced in sows recovering from the disease.

6) The dispersion and isolation of unaffected litters and sows to farrow helped in the control of the disease in some herds.

7) Sometimes it appeared that the only means of stopping losses in baby pigs was to stop farrowing on the affected farm for four to eight weeks.

Neither hog cholera nor rabies has appeared in Canada since 1946.—*Rep., Vet. Direct. Gen., March 31, 1951.*

When treating ear infections in the dog, the first thing to do is to make a smear of some of the exudate in a drop of mineral oil and to examine it under low power for the presence of ear mites.—*A. G. Misener, D.V.M., Chicago.*

Aujeszky's Disease in Pigs

In Northern Ireland sporadic cases of Aujeszky's disease have been reported in a variety of animals. Reference is made to 23 outbreaks involving cattle, sheep, pigs, dogs, and a cat. Neither the mode of infection nor the source is understood. Because of its sporadic nature, rats have been considered as a possible natural reservoir of infection. However, they usually die when infected. It has also been suggested that the pig may be a natural reservoir for the virus. The symptoms shown by infected pigs are less characteristic; therefore, diagnosis is less easily made than in other domestic animals.

In the three outbreaks reported in pigs, only the pigs in one litter in each herd were affected. In one litter of 10, pigs 4 weeks old were affected and died after a few hours. They showed temperatures as high as 106 F., with respiratory distress, sat up like dogs or were unable to stand, showed tremors and convulsions, and frequently nystagmus, champing and frothing at the mouth. Autopsy findings were negative and diagnosis was made on biological tests, using rabbits.

In another litter of 8, 14-week-old pigs, all developed diarrhea and, after two or three days, constipation. Temperatures were about 105 F.; the pigs were restless and kept walking with some incoordination. Several developed tremors and two died in convulsive fits. The others gradually recovered in about three days but continued to be restless, to scratch themselves for about two weeks, and remained unthrifty. Autopsy revealed only marked congestion of the brain and meninges. Bacteriological examination was negative and diagnosis was made on biological test. Rats were a possible source of infection in this case, since 3 dead rats were found seven days before the pigs became sick.

The third case was in a litter of 11 pigs, averaging about 75 lb. Only 3 of the pigs were affected. One died, and the other 2 were destroyed.

The possible source of infection in two litters is unknown. The variance in mortality may indicate that younger pigs have less resistance than older pigs.—*Vet. Rec., Feb. 9, 1952.*

The Rapid Diagnosis of Contagious Canine Hepatitis from Autopsy Material

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WIDESPREAD interest has been shown in contagious hepatitis of dogs since the description of the disease by Rubarth¹ and the early reports of American cases.^{2,3} Confirmation of the fact that this virus is identical with that described by Green⁴ as the virus of fox encephalitis has been claimed.⁵ This association of the name fox encephalitis with the dog disease has encouraged veterinarians to attribute many clinical encephalopathies to the virus of canine hepatitis. A review of clinical data of the cases of hepatitis coming to our hospital has shown that only 4 of a total of 56 have shown any symptoms that could possibly be related to encephalitis. (The coma commonly seen is readily explained on the basis of liver failure.) It would thus appear that more careful clinical evaluation and confirmation by autopsy are needed to distinguish contagious canine hepatitis from other dog diseases, notably canine distemper.

It seems worth-while, therefore, to describe the methods for quick diagnosis of hepatitis from postmortem material in use in the Angell Memorial Animal Hospital Department of Pathology. Two methods are employed. The imprint technique was first used in the laboratory with our fifth case, in August, 1947. This method was briefly described in April, 1948.⁶ It is hoped that it will prove equally useful as a confirmation procedure in practice where facilities for preparing tissue sections are not immediately available. The frozen-section technique was first used with our fourteenth case in January, 1949, and has not been previously reported. This method will prove of value where necessary facilities are available.

The Imprint Technique.—Impression smears or imprints are prepared from liver tissue and examined in the following manner:

1) Cut blocks of liver tissue approximately 1 cm. square and place them on a board or other dry surface.

2) Take a clean, grease-free slide and make a series of impression smears by

gently pressing on the cut surface of the block of tissue and lifting without any lateral movement (fig. 1).

3) Make at least four or five imprints on each slide, starting at one end and progressing to the other.

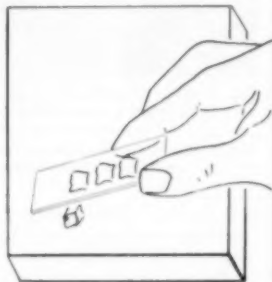
4) Use a fresh block of tissue or fresh surface for each slide to be prepared.

5) Air-dry the imprints a few minutes.

6) Stain by Wright's stain⁷ as recommended for blood smears⁸ but allow the stain to react longer. The time is determined by trial, as different lots of stain require different staining times. Determine the correct time by examination of nuclear detail. In our laboratory, five minutes are used for the undiluted stain and fifteen minutes for the dilution with buffer.

Fig. 1—Preparation of the impression smear by touching the slide to a block of liver tissue.

Note that a number of impressions are made on each slide.



7) After staining, rinse the slide in flowing tap water and stand it on end to dry. (No cover slip is employed.)

8) When the slide is dry, place on the microscope stage and examine for liver cells using the low power.

9) When an area is found containing numerous liver cells and relatively few

⁷Wright's stain is recommended because it is readily available and in use in nearly all practices. Any other dye with good nuclear-staining properties can be used. However, fixation with absolute methyl alcohol is required before use of other stains. Equally good results are obtained by the use of Giemsa stain (stain 30 min. with the Gradswohl product), polychrome methylene blue, or hematoxylin. For those employing methods for the demonstration of canine distemper inclusions, William's stain⁹, or modified trichrome S-3 stain¹⁰, or Pollock's trichrome stain¹¹ are equally workable.

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erythrocytes, place immersion oil on the area and examine by means of the oil-immersion objective. The inclusion bodies appear as dark basophilic bodies within

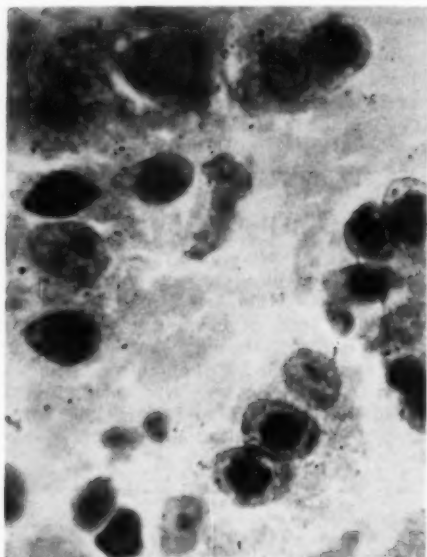


Fig. 2—Photomicrograph of an impression smear of liver tissue from a case of hepatitis showing liver-cord cells and erythrocytes.

Note that the inclusions within the nuclei are significantly larger than the nucleoli.

the nuclei, contrasting in size with the smaller nucleoli located in normal cells (fig. 2).

Frozen Section Technique.—Following is the technique used in preparing the frozen tissue:

- 1) Blocks of tissue approximately 0.3 by 1 cm. are cut from liver and placed in 10 per cent neutral formalin in a large-caliber test tube.
- 2) The formalin is slowly heated over a Bunsen burner until first evidence of boiling appears.**
- 3) The tissue is then allowed to stand for ten to fifteen minutes for complete fixation.
- 4) The block is removed from the forma-

lin, rinsed in water, placed on the freezing chamber and slowly frozen (fig. 3).

5) Sections are cut as thin as possible (usually 5 to 10 μ) and placed in tap water in a suitable vessel.

6) The sections are taken from the tap water with a needle and stained in Harris', Bullard's, Weigert's, or other hematoxylin for an appropriate time as determined by trial (approximately 1-5 min.).

7) Sections are removed from the stain and "blued" in lukewarm tap water for a few minutes.

8) Then mounted on slides from the water, allowing the excess water to drain away and permitting them to dry a few moments in the air.

9) Cover glasses are mounted in glycerin jelly and the slides are ready for examination.

Alternate Method.—If permanent sections are desired, the following technique can be used, although, in our experience, nuclear detail is somewhat diminished and more time and effort expended than in the above method.

Sections are cut as before, mounted from water on albuminized slides, blotted with smooth filter paper, and affixed by means of alcohol and celloidin as recommended by Foot.¹¹ After staining by conventional methods with hematoxylin, H & E, or S-3 as above, dehydration, clearing, and mounting of cover glasses are carried out as on paraffin sections.

In good frozen sections of liver, the inclusion bodies of contagious hepatitis can be



Fig. 3—Photograph of clinical microtome showing block of tissue frozen by carbon dioxide gas ready for sectioning.

**Superior nuclear detail is obtained, if time permits, by fixation in formalin at room temperature for six to twelve hours or at paraffin-oven temperature, 56-58 C., for two to three hours.

distinguished easily and quickly by microscopic inspection. The low-power objective (16 mm.) will often reveal them and they can be seen in detail by any of the higher powers (fig. 4). Other pathologic changes are readily seen and are helpful in reaching a diagnosis whether it be of hepatitis or other systemic or local disease affecting the liver (fig. 5).

Critique of Methods.—Imprint diagnostic methods are workable in hepatitis and are to be recommended in veterinary prac-

hepatitis were observed but no inclusions were present in either frozen or paraffin sections of the liver. Confirmation was

TABLE 1—Tabulation of Confirmations by Frozen Sections and the Imprint Technique

	Impression smears	Frozen sections
Characteristic inclusions of hepatitis	14	31
Changes characteristic of hepatitis; no inclusions present; confirmed by paraffin sections of kidney.	—	1
No inclusions; confirmed by animal passage and complement fixation; paraffin sections negative.	1	1
No inclusions; confirmed by paraffin sections of liver	1	1
Total number examined	16	34

tice. It is felt that the method here described is somewhat simpler and requires less specialized stains and reagents than that described by Davis and Anderson.¹⁷ It is adequate for diagnosis. The method has confirmed the diagnosis in 14 of the 16 cases in which it was used (table 1). There were 2 failures. In 1, the tissues were too autolyzed for either this or the frozen section method, but confirmation was achieved by paraffin section. In the other failure, neither frozen sections nor paraffin sections were positive. Diagnosis in this case was confirmed by both complement fixation and animal inoculation. No false positives have been observed.

Frozen section methods are quick and give more information than the above. While more time is spent in preparation of the specimens, much less microscopic perusal is required since the inclusions are sharp and unequivocal. Furthermore, the general pathologic alteration seen by this method is helpful in diagnosis and gives nearly as much information as the average paraffin section. This method has largely supplanted that of the impression smear in our laboratory. It has been used in 34 cases, with the results recorded in table 1. Inclusion bodies characteristic of hepatitis were present in 31 cases. In 1 additional case, general microscopic characteristics of

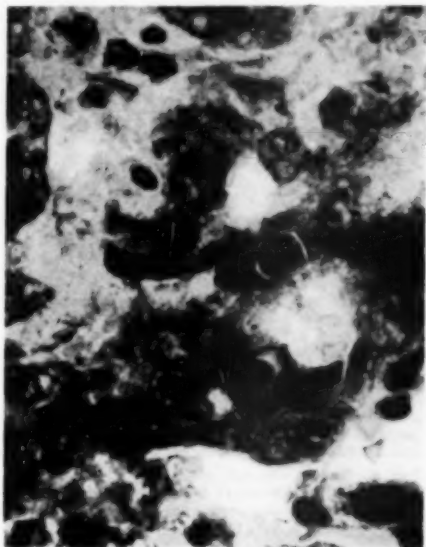


Fig. 4.—Photomicrograph of a frozen section of liver tissue from a case of hepatitis showing clear-cut intranuclear inclusions.

Note also the architectural features evident as liver cords, sinusoid with the spaces of Disse showing, and the presence of Kupfer cells in the sinusoids. Compare the size of the inclusions with that of the nucleoli.

accomplished by finding inclusions in the kidney glomeruli in paraffin sections stained by the Masson method. In 1 autolyzed case mentioned above, this method failed although paraffin sections provided confirmation. In the third case, results were equally negative by imprint, frozen section, and paraffin section, but the diagnosis was later confirmed by biologic means (see above under the imprint method).

This frozen section technique has been useful in distinguishing other alterations such as fatty change, cirrhosis, passive congestion, and malignant lymphoma. One case of toxoplasmosis was diagnosed by this means. Its disadvantage is that it requires a freezing microtome and will thus be of value only to those practitioners having access to a laboratory of pathology.

Both the imprint and the frozen section techniques are easily learned by persons

not possessing specialized skill in pathology. The interns on pathological service at the

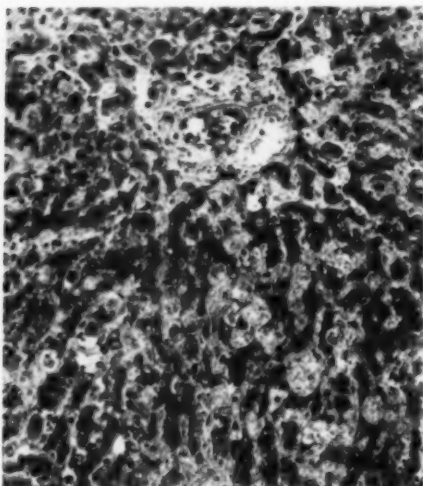


Fig. 5—Photomicrograph of liver (low power) showing general architectural features, including centrilobular necrosis, periportal edema, and cellular infiltration.

Angell Memorial Animal Hospital quickly learn these methods and apply them for diagnosis.

SUMMARY

Two techniques for rapid confirmation of contagious canine hepatitis are described. The rapid imprint technique has been utilized 16 times with 14 confirmations. The frozen section technique has been employed 34 times with 31 successful confirmations. Frozen sections have also been useful in the diagnosis of other liver diseases. Both methods appear worthy of recommendation.

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Indications for Premilking

Some dairymen believe that they can reduce the incidence of serious mastitis in their herds by milking certain cows, or at least some quarters, before calving. After years of study, the Pennsylvania Agricultural Experiment Station advises that: premilking twice daily does no harm; it reduces the amount and the length of time of "caked" (edematous) udders, especially in first-calf heifers; it probably has no effect on the incidence of "milk fever" or of acetoneemia; and it does not hurt the calf. Calves from such cows should be given added colostrum or vitamin A to replace that removed by premilking.

If the udder on a "springing" cow seems to be abnormal or if a cow has a mastitis history, she should be checked if the milk is normal for that period; nothing will be gained by premilking.—*Successful Farming*, April, 1951.

The diagnosis of diabetes insipidus is made on the basis of the symptoms of polyuria and polydipsia, urinalysis, and the administration of pituitrin. Other symptoms of hypothalamic dysfunction (somnolence and adiposogenital syndrome) may be present in some cases and aid in establishing a clinical diagnosis.—*Cornell Vet.*, Oct., 1951.

Hemocultures as a Diagnostic Aid in Swine Erysipelas

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HOFFERD,¹ HAGAN,² and Schoening³ stress the fact that swine erysipelas is difficult to diagnose in the field. When called upon to differentiate between swine erysipelas and other diseases which might be present in a herd of swine, additional diagnostic methods would be helpful. Often the veterinarian is called when one or several swine weighing 150 to 500 lb. are sick, but before any deaths have occurred. These animals are worth thirty to several hundred dollars each. If a positive diagnosis of swine erysipelas could be made when it is present, and the sick swine saved, it would be of considerable economic value to the owner.

In swine erysipelas, the causative agent, *Erysipelothrix rhusiopathiae*, is often present in the blood stream. Therefore, it seemed worth-while to try hemocultures as an aid in diagnosing swine erysipelas. This work presents a summary of the experience gained in the first herds studied.

PROCEDURE

The hemocultures were made by drawing 5 to 10 ml. of blood aseptically with a sterile needle and syringe, and ejecting the blood into 70 ml. of tryptose broth (Difco) in a rubber diaphragm-stoppered bottle. The samples need not be refrigerated if shipped promptly to the laboratory for further incubation, subculturing and identification of isolated organisms. All of the hemocultures in this series were sent to the Iowa Veterinary Diagnostic Laboratory, Iowa State College, Ames, for bacteriological examination. Tryptose broth was used, since it was routinely available for brucellosis hemocultures. In shipment, the bottles need not be refrigerated.

The blood was procured from the anterior vena cava.⁴ In our experience with hundreds of hemocultures for brucellosis, it has been demonstrated that the rate of contamination, even under field conditions, need

not be high. The glass syringes are wrapped in "kraft" paper, while the needles (not the hubs) are wrapped in tissue paper and placed in cotton-stoppered glass test tubes. They are then sterilized in the autoclave (pressure cooker using distilled water) at 15-lb. pressure for thirty minutes. These sterile needles and syringes can then be carried in readiness for use at any time in the field. After the hog is properly restrained in preparation for

TABLE 1—Hemocultures of 22 Swine Suspected of Having Swine Erysipelas

Herd No.	Sample No.	Animal No.	Date	Ery. thiospathiae from hemoculture	Treatment	Results of treatment	Comment
1	1	1	5/12	Pos.	Pen. ¹	Recovered	There were no deaths in this herd.
	2	2	5/12	Pos.	Pen.	Recovered	
	3	3	5/12	Pos.	Pen.	Recovered	
	5	4	5/12	Pos.	Pen.	Recovered	
2	4	5	5/24	Pos.	Pen.	Recovered	Cultures from dead animal were negative. None of the animals, from which hemocultures were made, died.
	5	6	5/25	Pos.	Pen.	Recovered	
	6	7	5/25	Pos.	Pen.	Recovered	
	7	8	5/25	Pos.	Pen.	Recovered	
	7	9	5/25	Pos.	Pen.	Recovered	
3	8	10	5/30	Neg.	Pen.	Recovered	Erysipelothrix was isolated from tissues of an animal that died on 8/16.
	19	24	8/16	Neg.	Pen.	Recovered	
	20	25	8/16	Neg.	Pen.	Recovered	
	21	26	8/16	Neg.	Pen.	Recovered	
4	9	11	6/18	Neg.			Herd did not appear to have had swine erysipelas.
	9	12	6/18	Neg.			
	9	13	6/18	Neg.			
	10	14	6/18	Neg.			
	10	15	6/18	Neg.			
	10	16	6/18	Neg.			
5	11	17	7/5	Con. ²			Streptococcus sp. was isolated from kidneys.
6	12	18	8/13	Neg.			Herd did not appear to have had swine erysipelas.
7	13	19	8/15	Pos.	Pen.	Recovered	
	14	20	8/15	Con.	Pen.	Recovered	
	15	21	8/15	Con.	Pen.	Recovered	
	16	22	8/15	Con.	Pen.	Recovered	

¹Penicillin refers to treatment of the animal with 5,000 units of crystalline procaine penicillin G (Merck) in sesame oil containing 2 per cent (w/v) aluminum monostearate per pound of animal.

²Hemoculture was contaminated.

From the Veterinary Research Institute, Iowa State College, Ames.

The author gratefully acknowledges the assistance of the staff of the Iowa Veterinary Diagnostic Laboratory, Iowa State College, Ames, who examined and identified the cultures.

bleeding, the skin of the neck is thoroughly cleaned with 70 per cent alcohol with or without 1/500 mercuric chloride. The syringe is then carefully unwrapped and the needle picked out of the tube with the tip of the syringe, leaving the tissue paper cover on the tip of the needle until just before the skin is actually pierced. While attention to aseptic details is essential, the technique is well within the facilities of the practitioner in the field.

DISCUSSION

Hemocultures were successful in demonstrating *Ery. rhusiopathiae* in herd 1 (table 1) without the aid of a postmortem examination, and in herd 2 where culturing of tissues following a postmortem examination failed to diagnose erysipelas.

In herd 3, the hemocultures failed where tissues from a postmortem examination furnished material for positive cultures.

In herds 4, 5, and 6, the cultures were negative and subsequent experience indicated the herds did not have erysipelas.

In herd 7, there had been 22 sick hogs weighing 100 to 150 lb. Twenty-one of these had died, but no dead animals were available for postmortem examination at the time when the farm was visited. The condition had previously been diagnosed as arthritis and treated with parenteral sulfonamides. At the time the farm was visited, there were 4 sick animals. One hemoculture was positive.

Some of the obvious advantages are that hemocultures can be taken from a larger number of animals than would normally be examined postmortem. The sick animal need not be killed for diagnostic purposes and can be treated. The samples are easily sent to the laboratory through the mail.

Hemocultures are not suggested as a substitute for careful clinical and/or postmortem examination, but only as a useful diagnostic aid.

SUMMARY

This is a preliminary report which would indicate that hemocultures have promise of being a useful diagnostic aid in swine erysipelas. In three of the four herds of swine infected with swine erysipelas, hemocultures were successful in demonstrating the causative agent. The sick animal need not be killed for this examination.

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Predisposing Factors and Swine Erysipelas

Three experiments indicating that various prevaccinations predispose swine to infection with erysipelas are reported.

One lot was vaccinated with crystal violet cholera vaccine. Three months later, they and some unvaccinated controls were inoculated with *Erysipelothrix rhusiopathiae* culture alone subcutaneously or intravenously. All the vaccinated pigs developed "diamond" skin lesions in about three days while the controls resisted infection.

A second lot of pigs were all vaccinated with crystal violet vaccine. A few months later some of these pigs were given 0.5 ml. of *Ery. rhusiopathiae* culture and 15.0 ml. of *Ery. rhusiopathiae* serum. The others were left as controls. After a month all were inoculated with living culture. The controls developed erysipelas while those immunized against erysipelas resisted infection.

An allergic factor is indicated by a third experiment. Six pigs were given 5 to 13 ml. of *Ery. rhusiopathiae* culture alone subcutaneously without producing infection. Two weeks later they were given 10 ml. of culture intravenously. All contracted erysipelas. Controls which received only 10 ml. of immune serum or 10 ml. of normal serum followed by 10 ml. of culture the next day remained healthy.—*Tijdschr. Diergeneesk.*, 74, 1949, abstr. in *Vet. Bull.*, Jan. 1952.

[The above indicates two things: the inconsistency of swine erysipelas and the seemingly greater susceptibility of swine to infection from inoculation with culture in Germany than in the United States.]—Ed.

The Effect of Sulfonamides on the Control of Fowl Typhoid in Chickens

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FOWL TYPHOID is frequently encountered in North Carolina during the summer months in young pullet flocks. There has been a gradual increase in the number of outbreaks reported in both chicken and turkey flocks within this area. In this respect, fowl typhoid has become of increasing economic importance to the poultry and turkey industries of North Carolina as well as to other sections of the United States.

A typhoid outbreak presents a serious community problem because of the rapidity of spread within a flock and the many ways the causative agent can be transmitted to other flocks. Under most circumstances, rigid sanitation in conjunction with blood testing and subsequent elimination of reactors has been the most effective means of control. However, in acute outbreaks, mortality may reach such high levels within the infected flock, before immune bodies can be detected by the use of an antigen, that it is unprofitable to attempt to maintain the flock without using therapeutic measures to reduce the mortality.

REVIEW OF LITERATURE

Some investigators have reported satisfactory results on the use of sulfaquinoxaline for the treatment of fowl typhoid. Boney¹ showed the effectiveness of sulfaquinoxaline in reducing mortality in two field outbreaks in turkeys. Treatment was given in the drinking water at the rate of 0.047 per cent for two days, then continued with 0.025 per cent and 0.02 per cent. Moore,² in his studies, found sulfamerazine and two sulfonamide compounds (a mixture of sulfamerazine, sulfathiazole, and sodium carbonate) to be highly effective in reducing mortality in young pullets artificially infected with fowl typhoid organisms.

Physiological changes have been observed in the body produced by over-dosing with some of the less toxic sulfonamide drugs. Horton-Smith and Boyland³ have shown sulfamethazine to cause changes in the blood clotting mechanism in young chicks and hyperplasia of the testes in cockerels. They advise that treatment should not exceed seven days in all. Sulfone, one of the more re-

cent sulfonamides, which exerts a toxic action on the nervous system in sheep⁴ needs to be given only once every forty-eight hours to produce good therapeutic results.

Several of the sulfonamides have been reported to be effective in the treatment of certain poultry diseases. Some of these diseases are caused by bacteria which are closely related species of the same genus of the etiological agent of fowl typhoid. Sulfadiazine, sulfamethazine, and sulfamerazine were found by Bottorf and Kiser⁵ to be equally effective in reducing mortality from pullorum disease in baby chicks. In earlier work of Severns, Roberts, and Card,⁶ they were able to obtain the most effective results in reducing mortality from pullorum disease by treating with 0.5 per cent sulfamerazine and 2.0 per cent sulfadiazine. Pomeroy *et al.*⁷ reported that sulfadiazine, sulfamerazine, sulfapyrazine, sulfaquinoxaline, and sulfamethazine were effective in controlling losses in chicks from pullorum disease, but sulfadiazine, sulfathiazole, and sulfamerazine were not effective in reducing mortality in chicks experimentally infected with *Salmonella gallinarum*. Experimental treatments with sulfonamides have also been conducted on poultry diseases which are caused by bacteria having some of the biochemical characteristics as the causative agent of fowl typhoid. Eveleth *et al.*⁸ experimented with sulfaquinoxaline in birds inoculated with *Pasteurella multocida* and found a reduction in morbidity and mortality when 0.25 per cent of the drug was added to the mash for five days.

MATERIALS

Rhode Island Red, New Hampshire, and White Plymouth Rock chickens from pullorum-clean flocks maintained by the North Carolina State College poultry plant were used in all experimental trials. There were eight trials conducted using 145 birds. Single breeds were used for each trial except in one case (trial V) where cross-breeds of all three breeds were used. All birds were maintained in individual cages with separate feed and water containers. The cultures of *S. gallinarum* employed for inoculation were recovered from field cases of severe outbreaks of fowl typhoid on North Carolina poultry farms. Several isolations were used over the period covered by these experiments, but the virulence was always determined before each trial. Serial passages of these cultures were carried out, in birds from the same group to be used in the trials, until mortality was established at an average of seven days from the time

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TABLE I.—Effect of Sulfonamides on Fowl Typhoid Exposed Birds

Drug treatment 5 days	Total	No. treated in each group	Group I			Group II			Group III			Group IV			Totals			
			Survived	Died	S. gallinarum	Survived	Died	S. gallinarum	Survived	Died	S. gallinarum	Survived	Died	S. gallinarum	Treated	Survived	Died	Mortality (%)
Sulfaguanidine 0.05%	I	1	0	1	100%	0	1	100%	0	1	100%	0	1	100%	4	0	4	100
Totals																		
Sulfone 0.009% + Sulfaguanidine 0.25%	I	1	0	1	100%	0	1	100%	0	1	100%	0	1	100%	4	0	4	100
Totals																		
Sulfone 0.018% + Sulfaguanidine 0.0125%	II	1	1	0	0	1	0	0	1	0	0	1	0	0	4	4	0	0
III	1	0	0	1	100%	0	1	100%	0	1	100%	0	1	100%	4	2	2	50
Totals																		
Sulfone, 0.018%	I	1	0	1	100%	0	1	100%	0	1	100%	0	1	100%	4	0	4	100
II	1	1	1	0	0	1	0	0	1	0	0	1	0	0	4	4	0	100
III	1	0	1	1	100%	0	1	100%	0	1	100%	0	1	100%	4	4	0	100
IV	1	0	1	1	100%	0	1	100%	0	1	100%	0	1	100%	4	4	0	100
Totals																		
Sulfaguanidine	I	1	35%	75%	100%	50%	50%	100%	25%	75%	66.6%	25%	75%	100%	16	5	11	68.7
II	1	0	0	0	0	1	0	0	0	0	0	0	0	0	4	0	4	100
III	1	1	1	0	0	1	0	0	1	0	0	1	0	0	4	4	0	100
IV	1	0	1	1	100%	0	1	100%	0	1	100%	0	1	100%	4	4	0	100
V	2	1	0	2	2	0	1	1	2	2	2	3	0	0	12	7	5	28.1
VI	2	0	2	2	2	1	1	1	1	1	1	1	1	1	8	3	5	62.5
VII	2	1	1	1	1	0	1	1	0	1	1	0	1	1	8	3	5	62.5
VIII	12	11	0	1	1	11	0	1	12	0	0	12	0	0	24	23	0	1
Totals																		

Group I — treatment began twenty-four hours before inoculation. Group II — treatment began simultaneously with inoculation.

Group III — treatment began forty-eight hours after inoculation. Group IV — treatment began ninety-six hours after inoculation.

of inoculation. The course and termination of the disease was found to be more uniform when birds were inoculated orally with 1 cc. of a 48-hour broth culture. The concentration of organisms in the broth cultures was equal in density to the No. 5 tube of the MacFarland nephelometer.

Three sulfonamides were used: sulfaguanidine, sulfaquinoxaline, and 4:4'-diamino-diphenyl sulfone.⁹ The first two are known to be effective in treating other poultry disease conditions, but the last one is a relatively new drug on which very little experimental work has been conducted in this country. These drugs have been tested singly and in combination in different trials. Treatments were administered in the drinking water in order to insure the consumption of the drugs after the infection had been established. It had been observed that birds showing symptoms of fowl typhoid would continue to drink water for variable periods after refusal of feed. Sulfaguanidine was administered in the water at the equivalent dosage rate of 0.5 per cent recommended in the feed for the treatment of coccidiosis. The drug was converted to a soluble salt by adding 2.4 Gm. of NaOH to 120 cc. of water and slowly adding 18 Gm. of sulfaguanidine, then adding enough water to make 1 gallon. A disodium salt solution of sulfone was used in the water at a concentration of 0.018 per cent when given alone. Sulfaquinoxaline was also given as a liquid in the drinking water in concentrations of 0.025 per cent and 0.0375 per cent. In trials where combinations of these drugs were used, the dosage of each drug was divided so as not to exceed the therapeutic level for the combined sulfonamides.

PROCEDURE

The whole blood rapid test with pullorum K antigen was performed on all birds to be used in the experiment. Only those negative to the test were inoculated. All birds were inoculated simultaneously, but treatment with the various drugs to be tested was started before, during, and after the inoculation to simulate natural exposure conditions in a flock where the treatment is static and the time of exposure is variable. The birds were divided into four groups for treatment on a basis of time of exposure to the fowl typhoid organism (table 1). In each trial, there was one control group that was inoculated at the same time as the other four groups but did not receive medication.

Postmortem examinations were made of all birds, and bacteriological cultures were made from their organs. Birds surviving at the termination of the experiment were blood-tested before being killed for laboratory examination.

Experimentation has been with small groups of birds. These experimental trials have been repeated and revised according to the information

obtained in the preceding trial. The number of trials was determined by the number of birds required in each group to produce results of sufficient accuracy.

EXPERIMENTAL RESULTS

Data obtained in the eight trials as shown in table 1 represent the relative efficacy of the three sulfonamides studied and their combinations, which can be compared on a basis of time of treatment after infection.

In early trials, sulfaguanidine was added to the drinking water after being converted to a water-soluble form. This drug was not tolerated when administered alone in the water, or in combination with sulfone. The treated water was obviously less palatable as the chickens consumed only small quantities, subsequently refusing feed and succumbing before the infected controls that did not receive treatment.

Since sulfone alone exerted a slight decrease in mortality (table 1) as compared with untreated controls (table 2), and the causative agent of fowl typhoid was not recovered from the sulfone-treated birds, there was not a distinct advantage to its use. Sulfone in combination with sulfaquinoxaline gave a much greater reduction in mortality than did sulfone alone. However, the presence of the sulfaquinoxaline was believed to be responsible for this effect since a combination of the two drugs failed to increase the effectiveness over that of sulfaquinoxaline given alone.

Since sulfaquinoxaline administered alone seemed to be the most effective drug studied in these experiments, later trials were conducted with sulfaquinoxaline under variable conditions. The concentration of the drug in the water was increased and the term of treatment lengthened. The *S. gallinarum* used for inoculation was obtained from different sources, and birds of differ-

TABLE 2—Untreated Inoculated Controls

Trials	Inoculated (No.)	Died (No.)	Average days survived	<i>S. gallinarum</i>
I	2	2	11	2
II	4	0	—	0
III	4	4	6	4
IV	4	2	8	2
V	3	3	12	2
VI	4	2	6	2
VII	8	8	8	8
VIII	12	12	9	11
Totals	41	33	8.5	31
Per cent	—	80.4	—	93.9

⁹The sulfone was furnished by Dr. C. A. Woodhouse, E. I. duPont de Nemours and Co., Inc., Wilmington, Del.

ent ages and breeds were used. There was no significant variation recorded in the response to treatment by different breeds or ages of birds. However, direct relationship was observed between the effectiveness of the drug treatments started after exposure and the virulence of the organism used. Treatments started forty-eight and ninety-six hours after exposure were more effective in reducing mortality when an organism of low virulence was used, the virulence being determined by the number of days the controls survived (table 2).

Best results were obtained when the sulfaquinoxaline was administered in the drinking water at a concentration of 0.0375 per cent over a period of seven days. Birds in groups II and III (table 1), which represented those individuals treated immediately after becoming infected and those receiving treatment after being infected two days, showed a higher rate of survival (83.3% and 79.2%) than those treated a day before infection (group I) and those treated four days after infection (group IV) (50% and 58.3%). Some birds in group IV succumbed before treatment was given. Other birds in this group were too sick to consume feed or water, thereby failing to obtain enough drug to be effective.

Trials I to V inclusive, in which sulfaquinoxaline was given at a level of 0.025 per cent for five days had an average mortality of 28.1 per cent as compared with 18.7 per cent for trials VII and VIII, in which the drug was given at 0.0375 per cent for seven days. In trial VI, the concentration of 0.0375 per cent was administered for five days. The resulting mortality in this trial was 62.5 per cent but the results were not considered significant due to the small number of birds used. The average mortality for all sulfaquinoxaline-treated birds was 27.2 per cent.

The total mortality of the untreated controls (table 2) for all trials was 80.4 per cent, which shows a reduction of 52.7 per cent in the mortality of those birds receiving sulfaquinoxaline under various conditions. In trials VII and VIII (tables 1 and 2) involving 20 untreated controls and 32 treated birds, there was a reduction of 81.3 per cent in the mortality between untreated and sulfaquinoxaline-treated groups.

All birds blood-tested five days after inoculation with *S. gallinarum* gave positive

reactions with pullorum K antigen. All surviving birds also gave positive blood tests just prior to killing at approximately sixty days from time of inoculation.

Of all treated birds which survived, the *S. gallinarum* organism was recovered from 11.5 per cent, while 95 per cent of the treated birds which died yielded the typhoid organism. In the untreated controls, the organism was recovered from 93.9 per cent of the birds when autopsy was performed. It is evident that the mortality in both the treated and untreated groups was due to the infection with the *S. gallinarum* organism. Although some of the treated birds which survived remained in the flock as carriers of the infection for an undetermined period, there was also a high degree of immunity developed in the recovered birds for the same period.

SUMMARY

The administration of sulfaquinoxaline, uncombined with other sulfonamides, in the drinking water for seven days at a concentration of 0.0375 per cent proved to be the most effective treatment in reducing losses from fowl typhoid. There was no significant variation in the response to treatment by different breeds, sex, or age of birds at the time of exposure. However, the effectiveness of treatments beginning forty-eight and ninety-six hours after exposure was lowered when highly virulent organisms were used. Treatment was considered effective in cases uncomplicated by other conditions when the disease had not advanced to the stage that the birds refused to eat or drink. Visibly sick birds which continued to drink water containing sulfaquinoxaline survived and were apparently normal at the termination of the experiments. Postmortem examinations performed at this time failed to reveal any evidence of the disease and *Salmonella gallinarum* was recovered from only 6 cases.

From these observations, it is indicated that sulfaquinoxaline administered in the drinking water at therapeutic levels in an outbreak of fowl typhoid will exert a marked reduction in mortality, particularly in that part of the flock in the early stage of infection.

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Microfilaria in Brain Tissue of a Skunk

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To the authors' knowledge, there is no record of *Filaria* sp. invading the brain of the skunk. However, there are references in the literature to the invasion of the brain of goats by the filarial nematode, *Setaria digitata*.¹⁻³ The following is a case report of microfilariae observed in the brain of a skunk.

On April 2, 1951, a resident of the Stillwater, Okla., area presented the head of a skunk, *Mephitis* sp., to the Veterinary Diagnostic Laboratory, School of Veterinary Medicine, Oklahoma A. & M. College, Stillwater, with a request for a rabies examination.

The client informed the authors that the skunk had walked upon his porch during the morning and without provocation had attacked his 2 dogs. He shot the skunk through the body and removed the head; thus the body was unavailable to us.

Upon gross dissection of the brain, we observed a meningitis. Smears of various areas of the brain were made and stained with Williams' modification of van Gieson's

stain. An examination for inclusion bodies of the rabies virus, *Formido inexorabilis*, was negative. However, slide examination did reveal an abundance of a microfilarial type of parasite. These parasites were abundant on all 35 slides made of the brain.

The microfilariae were also observed in the arachnoid spaces and within the nervous tissue proper in paraffin sections. Cellular reaction in the form of perivascular cuffing and cellular infiltration was absent, and neuron degeneration was not observed. The white matter of the cortex cerebri was markedly acid in reaction to stains.

The nematode observed was studied in an endeavor to identify it, but a specific identification was not possible. It was approximately 105 μ long and 4 μ wide. It was unsheathed and the nuclei did not extend to the tip of the tail, but formed a sharp triangle of seven cells about $\frac{1}{8}$ of the body length from the posterior extremity.

Some of the anatomical landmarks were: The nerve ring was located $\frac{1}{4}$ of the body distance from the anterior end; the excretory pore was in the first third of the body, and the excretory cell was located immediately posterior to the pore; the anal pore was about $\frac{1}{32}$ of the body length from the posterior extremity.

The genital cells were located as follows: G_1 was $\frac{1}{4}$ of the distance from the posterior extremity; G_2 , G_3 , and G_4 were in the posterior $\frac{1}{8}$ of the body and equidistant apart.

The adult *Filaria* was not observed in either smears or sections.

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Pasteurization of Eggs.—An effective method for pasteurizing liquid whole eggs, just as milk is pasteurized, has been reported. Processing the eggs at 140 F. for three minutes destroys the *Salmonella* bacteria and improves their keeping qualities without affecting their commercial usefulness.—USDA.

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Anthrax Control Program Outlined at Washington Meeting

Unprecedented occurrences of anthrax, principally in swine, in several Middlewestern states recently, stimulated the U. S. Livestock Sanitary Association to call a special meeting to determine what could be done to prevent further outbreaks and spread of the disease. Approximately 15 livestock sanitary officials and 30 or 40 others interested in the problem attended the meeting held at the Department of Agriculture in Washington, D. C., March 27, 1952. The AVMA was represented by Assistant Executive Secretary C. D. Van Houweling.

Dr. Ralph West, president of the U.S.L.S.A., presided at the meeting. Dr. C. D. Stein, Pathological Division, Bureau of Animal Industry, reported that there has been a gradual, but relatively consistent increase in the incidence of anthrax for many years. In 1951, there were 483 outbreaks reported, involving 28 states. This large incidence was also reflected in the reports of the Meat Inspection Division of the U.S. Bureau of Animal Industry, *i.e.*, in 1947—20 cases; in 1948—3; in 1949—27; in 1950—33; and in 1951 over 200 cases.

Dr. H. G. Geyer, state veterinarian for Ohio, stated that when the first case occurred in Ohio in 1951, the affected and exposed animals were destroyed and indemnities paid. There were no further occurrences until Feb. 22, 1952, when an outbreak occurred in Clinton County. There were 20,000 swine within 3 miles of an infected farm, and the disease spread to 17 other farms in this area in three weeks. Through verbal questionings, it was ascertained that meat scraps and tankage were involved. Later, when anthrax was diagnosed in another county, a sample of feed from an unopened sack was found to contain anthrax spores.

The company distributing these feeds had been adding about 10 per cent raw bone meal imported from Belgium to their meat scraps and tankage. It was later proved that the imported bone meal was contaminated with anthrax spores and was the source of the infection.

Altogether, anthrax has been diagnosed on 148 farms in 39 counties in Ohio. Most of the cases have been in swine; however, 5 cattle have died of the disease. The mortality in swine has been 0.015, and was believed to have been reduced through the use of antiserum and penicillin.

Dr. R. W. Elrod, state veterinarian for Indiana, reported that the occurrences of anthrax in Indiana had followed a pattern similar to that described for Ohio. There was one case in 1949, and the first positively diagnosed occurrence in 1952 was reported March 7. There have been cases in nine or ten counties, mostly along the east side of the state. At a meeting of the Indiana Livestock Sanitary Association on March 25, a resolution was adopted which: (1) prohibited the importation into Indiana of foreign and domestic bone meal, tankage, and meat scraps except that produced in establishments operating under the supervision of the BAI; (2) required all bone meal, tankage, and meat scraps delivered to grain elevators or feed

mills since Jan. 1, 1952, to be reprocessed at 60-lb. steam pressure for three and a half hours before being sold and/or distributed, except products from federally supervised plants which have not been stored with products from nonfederally supervised plants; (3) required all rendering plants in Indiana to cease selling and distributing similar products until they have been inspected and approved by an authorized representative of the state veterinarian; and (4) required these products in rendering plants to be reprocessed at 60-lb. pressure for at least three and a half hours and held until the plant is approved.

Dr. Elrod also reported that in almost every case feed from a plant incriminated in Ohio was being fed to the affected herds in Indiana, or shipments from this plant had been incorporated in feeds produced by other companies.

Dr. R. A. Thompson, state veterinarian for Illinois, said the history of the outbreaks in Illinois was similar to those of Ohio and Indiana. The first case was believed to have occurred in a cow in September, 1951. Since then, cases have been reported from 25 counties, involving about 45 herds of swine. The spores have been recovered from bone meal imported from Belgium.

At the afternoon session, Dr. O. H. M. Wilder, of the American Meat Institute Foundation, explained that the bones from which "raw" bone meal is made is cooked several hours at 212 F. Steamed bone meal is subjected to that same process plus about six hours of pressure cooking, about 40 lb., and dried at well above 250 F.

After considerable discussion, a resolution was adopted urging the USDA to prevent the importation of bones and bone meal intended for use in animal feeds or for agricultural fertilizer, unless it is known to have been heated sufficiently to kill anthrax spores and other pathogenic organisms.

The group also approved the appointment of a committee on anthrax of the U.S.L.S.A., with representatives from the BAI, Public Health Service, Food and Drug Administration, and American Meat Institute.

Another motion was adopted urging the USDA to require feed manufacturers and distributors to certify on their labels that the ingredients have been subjected to temperatures sufficient to kill anthrax spores and other pathogenic bacteria.

The Committee on Vital Statistics of the U.S.L.S.A. was also instructed to again introduce legislation providing adequate funds to establish a system whereby animal morbidity and mortality would be reported. Until such legislation can be enacted, the state veterinarians will be urged to report occurrences of anthrax to the BAI so that consolidated reports can be distributed by the chief of the BAI.

At the invitation of Dr. Van Houweling in behalf of the AVMA, it was agreed to have a postconvention conference following the AVMA meeting on June 26, 1952, in Atlantic City, to review the situation with respect to anthrax, hear a tentative report of the special anthrax committee, and receive up-to-date reports on foot-and-mouth disease in Canada and Mexico.

SURGERY & OBSTETRICS

AND PROBLEMS OF BREEDING

The Practical Teaching of Veterinary Obstetrics

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WHEN THE "era of the horse" ended, the veterinarian had to transfer his interest to the bovine species. This metamorphosis in the practice of the rural veterinarian brought a change in the curriculum of veterinary colleges, in that more attention had to be paid to the cow. In no subject was the change of more importance than in veterinary obstetrics and genital diseases, as the study of bovine sterility or, more accurately, temporary infertility, now required a greater proportion of time. The course became a study of reproduction in all of its phases.

Since so much of the work in the course is of an essentially practical nature, it is readily appreciated that practical as well as theoretical instruction becomes a necessity.



Fig. 1—Palpation of the right ovary.

The veterinarian attending a case of bovine dystocia for the first time may find his hand and arm "lost in a sea of fetal limbs" unless he has had an opportunity to orient himself by the use

of a dummy or phantom cow. It is true that none of the phantoms yet produced intimately resembles the living parturient cow, but its value in enabling the student to work in the dark of



Fig. 2—Examination of a gravid uterus.

the genital passage and correct abnormal positions and postures of the fetus can not be denied. So too, in the examination of the internal genitalia of the suspected sterile cow, previous tuition by the use of uterine and ovarian specimens from freshly killed animals is essential for a full understanding of the structures palpable through the rectal wall. The visual benefit derived from the close study of these specimens is of inestimable value when the student comes to examine a live cow whose peristaltic waves and changes in intra-abdominal pressure serve only to increase the difficulties encountered by the beginner.

Unfortunately, the writer still occasionally learns from conversation with practitioners that the new graduate "does not know much about sterility examination in cattle" or he "can not

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diagnose a four months' pregnancy in a heifer." This should be construed not as a reflection upon the new graduate but upon the teaching system which has permitted him to enter the professional

world ill-equipped for the normal daily tasks required in bovine practice.

How can the course be altered to remedy this deficiency, should such a deficiency exist? Before describing his attempts at improvement, the writer desires to acknowledge the excellent work done in the field of veterinary obstetrics and closely allied subjects by Swedish workers, one of whom (Lagerlöf)¹ recently contributed an article to this JOURNAL. Some of their ideas have been utilized or modified by the writer.

The first drawback is the bugbear of all instructors—time. Instruction in rectal examination of the internal genitalia must be carried out largely on an individual basis. The basic methods may be demonstrated to the class as a whole, but each live patient which the pupil examines is a law unto itself, and so individuality becomes the keynote of the instructor's efforts. This takes time, especially when the students in the class number around 60.

RECTAL EXAMINATION

Before any student carries out a rectal examination, a lecture-demonstration is given and the method of palpation through the rectal wall described. Great stress is laid on the marked tendency of the rectal wall to hemorrhage, especially in beef cattle, when subjected to any but the most gentle treatment. The dangers of forcing one's hand against the peristaltic wave and



Fig. 3—Examination of the left ovarian bursa and fallopian tube.



Fig. 4—Rectal exploration on a newly dead cow. The arrow points to the outline of the hand in the rectum.

¹Lagerlöf, Nils: Education in Veterinary Obstetrics and Gynecology. J.A.V.M.A., 119, (1951): 118.

the damage which can be done to the tract by "squeezing" instead of "stroking" the organs are also emphasized. The delicate touch can not be acquired by attention to a lecture alone but must be gained by actual experience, for only after a student has examined a case for the first time does he fully realize how much respect must be paid to the tissues manipulated. He soon appreciates, too, that an owner dislikes to see an arm heavily stained with blood withdrawn from one of his breeding stock. In this same lecture-demonstration, the difference between a corpus luteum and a graafian follicle, as determined by the finger tips, is pointed out. At this stage, the beginner scarcely believes it possible that he will be able to distinguish with certainty these two structures, yet with the aid of specimens the student rapidly acquires finger-sense, both on the covered postmortem specimen and in the live cow.

The use of a suitably bent sheet of metal (No. 24-gauge galvanized iron) fixed over a table and supported by a wooden block (fig. 1, 2) enables the student to appreciate how the genitalia fall over the pelvic brim and, consequently, why the ovaries are not always available for palpation as in one of the depicted specimens (a pregnant uterus of 8-months' gestation). The specimen is held in place by tape or string passing from one leg of the table through the cervix and over to a second leg. On this table is also demonstrated the expression of a corpus luteum of diestrus, the method of examination of the ovarian bursae and fallopian tubes (fig. 3), and the technique of rectal examination for pregnancy with the logical exception of the recognition of "fremitus" in the middle uterine arteries.

Occasionally, a cow or heifer is received for euthanasia and advantage of this is taken as follows. The animal is destroyed by intravenous chloral hydrate or magnesium sulfate and suspended by dissection room hooks (fig. 4). The flank region is cut away and the student carries out a rectal examination in the usual manner. The open side of the cow permits the on-lookers to note the movement of the hand within the rectum and how ovarian palpation is carried out. If the pupil seems tardy in locating and encompassing the ovaries, the instructor can guide him by placing the ovaries within reach of the searching hand. It should be pointed out,



Fig. 5—Correction of a lateral deviation of the head.

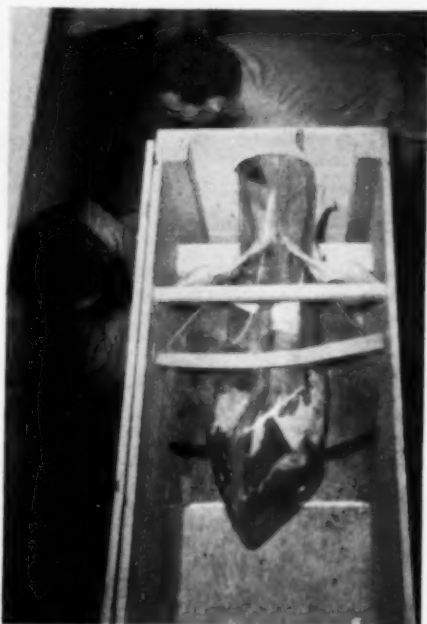


Fig. 6—Examination prior to delivery of the calf.

however, that this method of rectal exploration differs from that in the living subject, because in the former there are no peristaltic waves or negative pressure

EXAMINATION FOR PREGNANCY

As far as pregnancy examination of the living animal is concerned, the ideal set-up

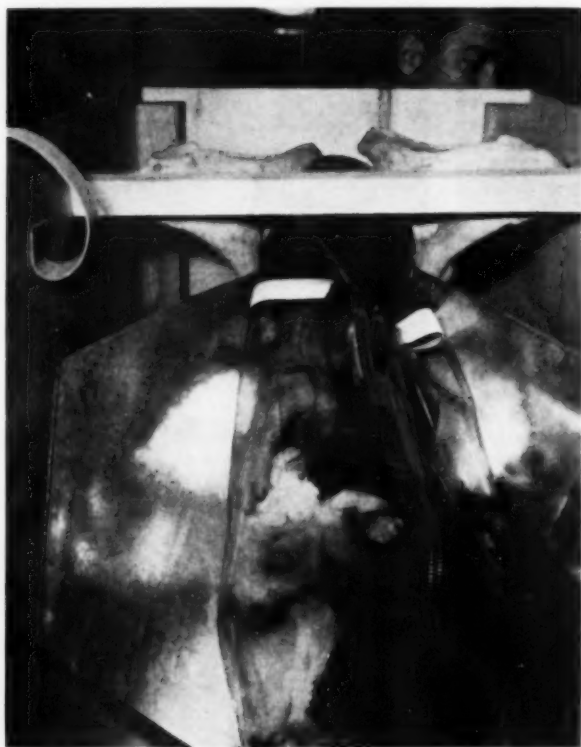


Fig. 7—Examination of the calf prior to correction of lateral deviation of the head and neck.

with which to contend and the floor of the rectum can be depressed to a greater degree.



Fig. 8—Delivery of the calf using obstetrical chains.

is to obtain permission from a nearby dairy farm for the instructor to take four students to the farm for an hour. Cows, empty and in varying stages of gestation, are available for examination and the students' conclusions may be matched against those of the instructor and the breeding records. The cooperation of a local packinghouse may also be sought so that animals may be examined prior to slaughter, after which the students' findings may be confirmed by visual inspection of the genitalia. Fortunate indeed is the teacher who has such arrangements at hand, but if these opportunities do not present themselves, advantage may be taken of any bovine patients in the hospital, the students responsible for the care of the particular cow be-

ing permitted under supervision to perform rectal exploration in the course of routine examination and treatment.

RELIEF OF DYSTOCIA

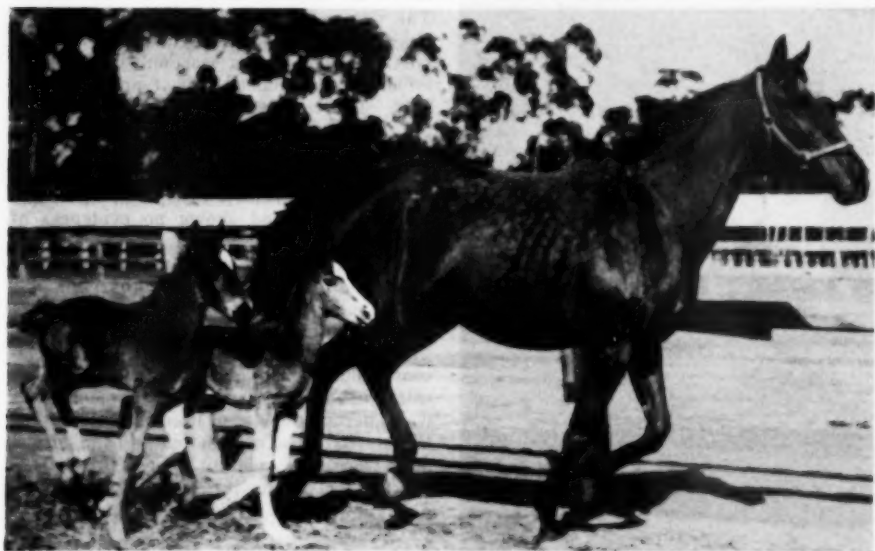
For instruction in the relief of dystocia, two pieces of apparatus are available—the mounted pelvis and the dummy or phantom cow. The mounted pelvis is simply a bovine pelvic girdle mounted on a sloping platform on which is placed a dead calf—calves born dead of parturient cows admitted as dystocia cases are kept in a refrigerator until required for this purpose—and the instructor demonstrates the normal and abnormal presentations, positions, and postures of the fetus. An assistant holds the calf in the desired position as the demonstrator carries out the various mutations necessary for the relief of the dystocia under discussion, while the entire class has an uninterrupted view of the movements of the instructor's hands. The application of obstetrical chains, hooks, the use of the repeller, and the method of applying the law of opposing forces in an attempt to effect delivery may also be easily shown. Figure 5 shows a demonstration in progress. When

the supply of calves is sufficient, embryotomy by subcutaneous and percutaneous methods is also taught on this apparatus.

THE PHANTOM COW

The phantom cow is constructed on similar, but less elaborate, lines to those used in Sweden and the Royal Veterinary College, London. The only innovation which the writer has introduced is that the uterus and vagina are made of vinylite plastic. The uterus is opened and closed by means of a zipper fastener. Because of the transparent plastic material, the instructor can watch every movement of the student's hands as the latter prepares to deliver the calf (fig. 6, 7); thus, any errors in technique may be quickly corrected.

The phantom cow is used for individual instruction and students are taught how to deliver correctly by manual or instrumental means (fig. 8). To the student who rarely, or never, has had the opportunity to examine a parturient cow, the dummy offers an opportunity to better equip himself to tackle the real thing when he encounters it as a full-fledged member of the veterinary profession.



—United Press Photo

Twin colts are rare and frequently, as here, one is normal while the other is underdeveloped, awkward, and bandy-legged or worse. Here the two are loping in step, almost as if the mother and the stronger baby were running interference for the stumbling little twin. They were foaled at the Kreutzkamp ranch near Nestor, Mexico, according to the United Press.

Tail Injury of a Dog

J. W. BAILEY, D.V.M.

Fort Atkinson, Wisconsin

A black Labrador Retriever was recently presented with about two-thirds of the tail tissues sloughed away to the bone. The owner said the animal had suffered an in-



Fig. 1—Dog's tail, showing how skin and subcutaneous tissues slipped off after the tail had been injured.



Fig. 2—Completed amputation of the injured tail.

jury through being struck by a car. The tail had been almost completely encircled by a severe cut. The wound had been dressed and bandaged, but in about a week the skin and subcutaneous tissues of the distal part of the tail had slipped off the bone in a single section to leave the animal as shown in figure 1.

Amputation of the tail was decided to be the best procedure. Morphine and infiltration with procaine were used as anesthetics. The completed amputation is shown (fig. 2) before bandaging.

Torsion of a Bovine Uterus

HERBERT RICHMAN, V.M.D.

Murfreesboro, Tennessee

The article by Dr. J. W. Safford on torsion of the uterus in the *JOURNAL* (Jan., 1952: 16) was of interest to me, for on Jan. 16, 1952, a grade Hereford cow of one of my clients was found to have a 360-degree torsion of the uterus a few days prior to the normal parturition date. Vaginal and rectal examinations revealed that the torsion was entirely anterior to the cervix. The vagina was not involved except for a slight pocketing to the right of the anterior portion. The cervix was only slightly dilated with the mucus seal of pregnancy intact. The complete torsion of the body of the uterus was revealed by two parallel ridges directed clockwise which were easily palpated through the rectum.

The cow had been listless and off feed for two days but had shown no evidences of parturition labor.

A cesarean section was performed using the standing position and right flank. A large volume of peritoneal fluid escaped when the peritoneal cavity was opened, probably indicating peritonitis. The placental fluid was very dark colored. The calf was dead. The placental membranes were decomposed and literally fell out of the uterus. The uterine mucosa and cotyledons were dark colored. The return of the uterine incision to its original position indicated that the torsion had been complete to 360 degrees. Death of the fetus and the toxic condition of the cow may be consid-

Dr. Richman is a practitioner in Murfreesboro, Tenn.

ered as evidence of interference with uterine circulation.

Postoperative treatment included 3,000,000 units of penicillin in oil given intramuscularly immediately and repeated after forty-eight hours, with a third injection of half that amount after ninety-six hours, along with 5 cc. of posterior pituitary extract.

After ninety-six hours, bloody stains on the tail indicated that the cervix had dilated. Ten days following the operation, the sutures were removed with primary healing. One month later, the cow was doing well.

Amputating a Gangrenous Toe.—A surgeon from the Chicago Medical School states that heat is contraindicated in treatment of gangrenous extremities since it increases the metabolism and, therefore, requires more local blood supply. Since the vessels cannot respond, additional damage is suffered. He prefers cooling the tissues by covering the toe with gauze kept moist with 70 per cent alcohol, which also keeps it clean. When the gangrenous portion is demarcated by a circular indentation, it should be amputated at that point with sterile surgical scissors. If amputated higher, increased edema and further gangrene may result. The alcohol dressings are continued and penicillin is given until the stump is pretty well healed over. Tocopherol had been tried but results were not impressive.—*J.Am.M.A.*, March 15, 1952.

Genital Infection in the Mare

To determine the type of genital infection in the mare, cultures from the cervix should be taken during estrus. At least eight species of bacteria are able to produce genital infections which could lead to abortion. Abortions in the mare also may be due to a virus, to nutritional disorders, or to endocrine dysfunction.

Bacterial infections of the mare's genital tract may be corrected by a rest period from breeding, by medicinal treatment or, in some cases, even by surgery when suturing of the upper part of the vulva will keep out foreign material. Sulfonamides and antibiotics are frequently used in an attempt to eliminate a specific type of bacteria involved. Biological products are also

used in some cases. Of these, the *Salmonella* bacterin is the most effective, but it is used to prevent abortion rather than to treat infections. A *Pseudomonas aeruginosa* bacterin also may be of value in some cases, but other types of bacterin are ineffective.

Although not as effective as many ads indicate, certain of the sulfonamides and penicillin are of value in treating streptococcal infection. A combination of these may be placed in the infected uterus during estrus. Streptomycin may aid when treating *Escherichia coli* or *Shigella equuli* infections.—*D. W. Bruner, D.V.M., New York State Vet. College, Ithaca.*

Inseminating Mice

Several methods for the artificial insemination of mice were tried, the most successful being the injection of the sperm suspension into the uterus horns of the laparotomized female one and a half to four and a half hours after she had mated with a vasectomized male. Of 103 inseminations, 74 were fertile. Six were later unable to deliver their litters, possibly due to operative damages, but the others averaged 5.97 young.—*J. C. Kile, D.V.M., in Anat. Rec., Jan. 1951.*



—Acme Photo

The 3-month-old Cocker Spaniel "Doll" (center) is convalescing from a heart operation performed recently by Dr. Willis J. Potts at Northwestern University Medical School. Dr. Potts is noted for his "blue baby" surgical techniques which were perfected through experiments on "Caesar," the dog at left.

Reduction of Tibial Fracture in a Bull

RALPH GANIS, D.V.M.

Gordon, Nebraska

The patient was a 2-year-old, 1,000-lb. Hereford bull with a diagonal fracture of the lower left tibia of one to two weeks' duration.

After fasting for twenty-four hours, the bull was given 10 cc. of nembutal® (Abbott) intravenously and cast on his right side. To maintain anesthesia over a four-hour period, 450 cc. of 12 per cent chloral hydrate, 6 per cent magnesium sulfate mixture, and 26 cc. of nembutal were later given. Normal saline was alternated with the anesthetic solution to keep the tube open. Moderate traction was maintained by a block and tackle attached at the pastern.

The leg was moistened and a depilatory paste applied on the entire surface from the stifle to the fetlock. The paste was then rinsed off and the area soaped and scrubbed with a brush. After a second rinsing, the area was swabbed generously with 70 per cent rubbing alcohol. The instruments used had previously been sterilized in a pressure cooker for twenty minutes at 15-lb. pressure.

At each pin site, a small incision to the bone was made. Then a perforation in the bone was started with one of the pins in a Kirschner intramedullary pin drill. Next, the bone was drilled through, using a 3/16-in. bit and breast drill. Finally, the pin was placed through the bone and on through the skin of the opposite side. For the two pin sites in the upper tibia, the bone was drilled from the medial side. The lower pin was then placed through the metatarsus. Clamps and pin rods were applied. Before tightening the fixation bars in place, the leg was checked for rotation. Finally, the pins and fixation bars were sawed the desired length.

The apparatus was left in place for thirty-three days. Weight was borne on the limb from the start, although about five steps out of six were taken on the dorsal surface of the foot and pastern. The temperature readings during the period varied from 102 to 105 F. Some suppuration developed from the proximal pin sites

and from some pressure damage at the site of the clamps. Bending of the pins was noticed the last two weeks, but the clamps



Fig. 1—The fractured leg of the bull on the thirty-third day after operation, at which time the apparatus was removed.

were not damaged. During the final week, the bull ate only oats and remained recumbent much of the time. Three million units of procaine penicillin in oil was given at the time of operating and again on the third and fourteenth days; 500 cc. of a 12 per cent sulfamerazine solution was given intraperitoneally on the day the apparatus was removed.

Removal of the pins was routinely done with the bull cast after being given 250 cc. of the chloral hydrate-magnesium sulfate mixture. The hair had grown back during this period.

Six months later, most of the limping had vanished and the size of the leg was nearly normal.

Dr. Ganis is a practitioner in Gordon, Neb.

When moving, advise the AVMA.

New Gestation Table

The gestation period for all cows has long been given as approximately 283 days. That there were individual, family, and breed variation has been recognized. Recently, the American Dairy Science Association has recommended a new table for dairy breeds based on more complete data. While Guernseys conform closely to the old table, Ayrshires, Holstein-Friesians, and Jerseys show a period about four or five days shorter, while Brown Swiss have a period a full week longer. Table 1 indicates the recommended gestation period by breeds.

TABLE 1

Breed	Days
Ayrshire	278.7
Brown Swiss	290.8
Guernsey	284.0
Holstein-Friesian	278.9
Jersey	279.3

First-calf heifers in any breed usually have a gestation period about two days less than adult cows.—*Hoard's Dairyman*, Aug. 1951.

[Brown Swiss cattle are also slower in the development of their incisor teeth. The dental formula for cattle as quoted by most textbooks is roughly correct for Brown Swiss cattle but not for most other common breeds of cattle. In the latter, the incisor teeth usually erupt at a considerably younger age than that quoted.]—Ed.

Bovine Trichomoniasis.—Bovine trichomoniasis is reported to be on the decrease in England, probably due to the increased use of artificial insemination. However, this venereal type of disease can be spread even in that method of breeding. In this report, the parasite was recovered both from the semen and from the artificial vagina after service with an infected bull. The parasite lived in the semen for two days, even though stored at low temperatures. *Trichomonas* organisms lived in the artificial vagina up to five hours and the infection was easily transmitted to other bulls in this manner. Three such experiments are recorded in this article.—*Vet. Rec.*, Jan. 5, 1952.

Amputation of the Leg of a Calf

FLOYD R. KEEN, D.V.M.

Hugo, Oklahoma

The calf in figure 1 is 10 months old and is eligible for registration. At 3 months of age, a deep abscess developed over the



Fig. 1—A 10-month-old calf whose right hind leg was removed at the age of 4 months.

right stifle region. It was opened, drained, and necessary after-care was performed.

A month later a fistulous tract developed, which had its origin in the stifle joint cavity, a typical empyema. Curettement was unsuccessful and the condition recurred. Ankylosis of the joint was developing and causing great difficulty in the animal's movements; therefore, amputation was necessary.

The usual preoperative procedures were performed and the animal was anesthetized with chloral hydrate. The same technique was used as for a similar operation in small animals; however, upon reaching the femur, the chronicity of the condition had developed into an ascending infection necessitating removal from the joint socket. Vessels, of course, were ligated, with a consequent minimum loss of blood. Muscle stubs were pulled over the empty joint cavity and the skin incision was closed by interrupted sutures. Healing occurred in three weeks and the animal was turned out to pasture. She is now fat, gets up and down easily, and runs when frightened.

Dr. Keen is a practitioner in Hugo, Okla.

NUTRITION

Apparent Intestinal Synthesis of Carotene

Some sheep excrete more carotene than they consume (W. A. McGillivray, *Nutr. Rev.*, Feb., 1952). Four pasture-fed sheep in New Zealand were slaughtered and ingesta obtained from various points in their alimentary tracts. The samples were analyzed for carotene and for lignin, a relatively inert, 96 per cent nondigestible pasture constituent. The average carotene : lignin ratio in the pasture herbage was 18.5. It was about the same in the stomach: 10 to 15 at mid-region of the small intestine, indicating carotene absorption; 22 to 28 in the cecum, indicating synthesis; the ratio gradually decreased in the colon and rectum, indicating possible oxidation. The ratio in the feces was essentially the same as in the herbage.

Much has been written concerning the role of intestinal microorganisms in the synthesis of vitamin B complex members, but the synthesis of a fat-soluble provitamin such as carotene has rarely been considered.

Stability of Vitamin A in Feeds

Oxidation destroys vitamin A. Certain oils and other solvents can be fortified with antioxidants to stabilize vitamin A in solutions but are less effective when these solutions are added to mixed feeds. Therefore, dry vitamin A preparations have been tried in mixed feeds. Each of seven such preparations were subjected to a series of four storage conditions: stored as received; mixed with ground yellow corn; mixed with soybean oil meal; mixed with glucose (cerelose). All were stored in capped bottles in the dark at room temperatures and analyzed at monthly intervals.

The most stable contained a mixture of antioxidants, the least stable only one antioxidant. After six months, the most stable product retained 86 per cent of its vitamin A efficiency when stored alone; 75 per cent when stored in corn meal; 81 per cent when stored in soybean meal; and 61 per cent when stored in glucose; whereas,

the least stable product retained 67 per cent of its potency when stored alone; 46 per cent when stored in corn meal; 55 per cent in soybean meal; and 16 per cent in glucose. All of these are an improvement in vitamin A retention over products used in feeds in the past.

Many factors can promote oxidation: decomposition products derived from fats in fish or meat meal; minerals, particularly manganese. The use of more vegetable proteins and vitamin B₁₂ antibiotic concentrates in mixed feeds should increase their antioxidant qualities and improve the vitamin A stability.

Considerable interest recently was centered on the use of ACTH and cortisone in human cases of acute leukemia, which is invariably fatal. Previous reports had been encouraging, but seeming improvement proved to be only remissions and the fatal terminations were merely postponed. —*Nutr. Rev.*, Feb., 1952.

Feeding Runt Pigs

A feeding experiment was set up to compare feeding pigs, free-choice, a ration of corn and a complete supplement, and a complete mixed ration. Eighteen runt pigs, 8 to 10 weeks old, weighing about 12 to 21 lb., were divided into two uniform lots. All were scouring, thin, and unthrifty. All were immediately treated for both external and internal parasites. One lot was self-fed a complete mixed ration; the other lot was self-fed corn and in a second feeder a complete supplement ration. Both lots were fed terramycin at the rate of 5 mg. per pound of complete ration. In both lots scouring stopped in about a week, and both lots made similar, excellent gains. However, those fed on the complete mixed ration were 24 per cent more efficient in converting feed into pork, and were more uniform in appearance. It is suggested that the appetite of individual pigs differs, and that some do a better job selecting their feeds than others. It also demonstrates that many runt pigs may be salvaged if properly fed.—*Reprint, Quart. Bull., Michigan Agric. Exper. Sta., Feb., 1952.*

EDITORIAL

That Cholera Vaccination Conundrum

"Who shall decide when doctors disagree?" Never has that quotation been so applicable to the hog cholera problem as today, and with the 1952 vaccination season upon us.

Time was when the chief question regarding cholera was whether to burn or bury the carcasses. With the advent, forty some years ago, of simultaneous hog cholera antiserum and virus vaccination, the chief questions became those of dosage and the avoidance of vaccination infections and abscesses. Such questions were solved by field experience and refinement of the products.

With the successful development of the simultaneous vaccination technique, a new era was born, not only for swine practitioners and the swine-raising industry, but also for the entire veterinary profession. While the hyperimmune serum had very little curative value, it gave immediate protection and, when used with virulent virus, an exceptionally solid immunity. It insured the pork crop, but the method was clumsy and costly and carried a distinct element of danger — the virulent virus.

No more deadly disease-producing agent, for a given species, exists than hog cholera virus. Yet simultaneous vaccination required its mass production and distribution. The more optimistic may have hoped thus to eradicate hog cholera, but as a matter of sad realization, our profession's most earnest efforts toward that goal, while they have exerted a distinct measure of control have, due to the potency of virus, actually perpetuated the disease.

Meanwhile the production and use of the serum and virus grew to be the largest single industry associated with the practice of veterinary medicine. The occasional postvaccinational troubles were dreaded — but tolerated. They could sometimes be avoided by pre-treating the ailing herds before vaccination, or by increasing the serum dosage or, as in recent years and in certain cases, by giving the serum alone and the "delayed virus" several days later

if the adverse conditions had by then been corrected.

However, in midsummer of 1949, post-vaccinational troubles of serious proportion became frighteningly frequent. A high percentage of the pigs in these herds sickened during the "reaction" period — usually from the sixth to the tenth day — and most of them died regardless of treatment. This distressing experience was repeated in the summer of 1950. As a result there was widespread concern, some frantic investigation and considerable soul searching. The most widely accepted explanation was that a variant virus, or viruses, had somehow contaminated certain serials of immunizing virus. Be that as it may, the experience gave a decided impetus to the search for a less dangerous method of immunization.

At the time when hog cholera was proved to be caused by a virus, a search for a method of modifying that virus so that it would be a safe yet effective vaccine was instituted. That search continues. Even the late Dr. Marion Dorset and his colleagues were said to be disappointed when they had to settle for the simultaneous serum and virus method, great contribution to hog cholera control though it was.

Then, about twelve years ago, the Bureau of Animal Industry supplied a limited amount of its new crystal violet vaccine for field trials. Boynton's tissue vaccine (B.T.V.) was approved for similar testing about the same time. After about five years of careful and extensive field appraisal, these chemically attenuated viruses were released for commercial production and use. Their chief advantage was their relative safety. They did not cause the undesirable negative phase, with its leukopenia, which seems to invite dormant or adjacent infections to raise havoc. The producers of these vaccines conscientiously warned the public of the principle disadvantages of their vaccines—namely the slow development of immunity and its uncertain duration. Perhaps, we must

expect, therefore, that in certain individual swine, the immunity may be too slow and of too short duration to give much protection against the disease. However, these vaccines, gradually introduced, have found a place in our armament against hog cholera.

Less gradual has been the introduction of the most recent type of hog cholera vaccine, the modified or lapinized virus vaccines. First suggested by Dr. J. A. Baker in 1947, their development was speeded by the postvaccinational troubles of 1949 and 1950. Undoubtedly spurred by fantastic publicity, the careful field testing such as that given the chemically attenuated vaccines was not repeated. In place of years of field tests and observations, in the hands of practitioners, in all segments of the swine-belt, the field testing done was in a more restricted time and area. Moreover, swine owners, having been conditioned to spectacular new scientific developments, such as the so-called wonder drugs, responded to the flood of publicity by requesting that these new vaccines be used on their herds. The stage was set for a revolutionary change in a fundamental item of swine practice and, perhaps, the end of an era. Had the hopes raised and the promises made been fulfilled, we doubtless today would be at the peak of such a transition—but, actually, just where are we?

The new vaccines became available for commercial use in September — near the end of the 1951 vaccinating season. Although many practitioners have not yet used them, perhaps the majority in the swine-belt have. Of those who have used them, a high percentage has been disappointed by postvaccinational troubles which are much too reminiscent of those of 1949 and 1950 — the very condition all were trying to avoid.

It is too early for an accurate or just judgment to be formed, but perhaps we are further from that new era than we thought. There is an intense interest in this subject and the disappointed users of the new vaccines have shown a remarkable patience, perhaps hoping that their unsatisfactory experiences were not typical. To test their opinions, the JOURNAL recently sent out a questionnaire to a limited number of well established and respected practitioners who do considerable hog cholera control work. As we go to press, 24 of the 48 have re-

plied. Seventeen of the 24 have used varying amounts of one or more of the three new vaccines. Nine of the 17 have been disappointed by the occurrence of postvaccinational troubles.

A summary from their replies shows that of 220,000 swine vaccinated with the older chemically attenuated vaccines, troubles developed in three to 150 days after vaccination in 2,625, or 1.2 per cent of the swine so treated. In 11,180 swine vaccinated with any one of the three new modified vaccines, trouble developed in five to eleven days in 361 pigs, an average of 3.2 per cent. These figures however are not comparable. Most of the troubles with the chemically attenuated vaccines were due to a failure in production of a dependable immunity whereas, in the modified vaccine, little if any indication of the immunity developed is available as yet. All of the troubles reported for the modified vaccines are purely postvaccinational troubles.

Concerning their plans for 1952: all but 2 of the 24 practitioners reporting expect to continue using serum and virus; 13 of the 24 will use nothing but serum and virus unless the owner demands other methods and assumes the responsibility in case of trouble; 7 of the 24 expect to use some chemically attenuated vaccine; 2 of the 24 will use modified vaccines only; and 8 of the 24 plan to use a limited amount of modified vaccines, while using serum and virus mostly.

It is hoped that further improvement in the modified vaccines and further experience in their field use may develop them to the point where they will be both safe and effective. Then, definitely, we will be in a new era. Also, perhaps, we may then be justified in discussing and planning the eradication of hog cholera.

Rabies control in the United States is at a standstill or getting worse. New infected areas have been discovered and, due to the inefficient administration of rabies controls, with duplication and overlapping of authority, no progress is being made. Therefore, it is recommended that legislation be introduced to authorize the Bureau of Animal Industry to participate in rabies control in the United States.—*L. E. Starr, D.V.M., Atlanta, Ga., Chairman, Committee on Rabies, U.S.L.S.A.*

John Robbins Mohler—1875-1952

The death of Dr. John R. Mohler at the Homeopathic Memorial Hospital, Washington, D. C., on Feb. 28, 1952, at the age of 76, following a heart ailment of several years' duration took from our circle its most prominent figure. In the press release issued by the federal department of agriculture, he is set down as a "famed scientist and livestock expert" and as an outstanding administrator and pathologist. For us, he occupied key positions in the U. S. Bureau of Animal Industry for forty-six years and was its chief from December, 1917, until his retirement in July, 1943. The vigorous patterns we watched him cut and employ for the mastering of foot-and-mouth disease, hog cholera, tick fever, bovine tuberculosis, glanders, fowl pest, and the other plagues that threatened the security of the nation's livestock industry, gave birth to the general agreement that "the United States is the safest place in the world to raise livestock." No flow of words could tell more about the achievements of our departed chief, for here one speaks of America's fundamental undertaking—the production of farm animals—involving profound technical knowledge, unerring disciplinary action, and wise diplomacy in the academic and economic fields. Volumes would be required to tell the full story of the enterprise Dr. Mohler commanded so perfectly through many troublesome years and grave visitations capable of destroying the nation's well-being. To have taught our pre-occupied people the part animal health plays in their welfare was a difficult task we are apt to overlook in the work of the bureau he directed for more than a quarter of a century.

Dr. Mohler was born at Philadelphia May 9, 1875, received an A.B. degree from Temple University in 1893, and his veterinary degree (V.M.D.) from the School of Veterinary Medicine, University of Pennsylvania, in 1896, and was appointed, by civil service examination, inspector in the federal Bureau of Animal Industry in 1897. He attended the medical school of Marquette University from 1897 to 1899. He worked in the field service and meat inspection service, then entered the pathological division and was made its chief in

1901. In the latter position, he kept surra from entering the country by recognizing the disease among imported Zebu cattle held in quarantine on the eastern seaboard.



Dr. John R. Mohler

In 1902, he confirmed an outbreak of foot-and-mouth disease and was delegated to direct its extermination, and promptly did so. Likewise, he successfully managed the outbreaks of 1908, 1914, 1918, 1924, and 1929.

However his work is reviewed, it is clear that "pathology" was his strategic front in conquering plagues—note the pathological laboratories he deployed at strategic locations (Washington, Chicago, Denver, etc.). In this respect, the strategy of the lamented chief is apt to be too soon forgotten. That is, there's more than meets the public's eye in the philosophy that veterinary service is a chore for the veterinarian who knows the complex ramifications of animal diseases. The task of providing a reasonable state of health in our gigantic livestock industry, in concert with big interests, required the wisest of planned diplomacy. That ability, in a few words, is what he had, and it made John R. Mohler the great livestock sanitarian he was; a man who will live on and on in the hearts and minds of men.

Dr. Mohler joined the AVMA in 1898; he served on various committees and was elected president in 1912. Later, he served

two terms on the Executive Board: from 1916 to 1919 (chairman 1917-1919) and from 1924 to 1929. In between these terms, he was editor of the JOURNAL from 1920 to 1923 at a time when that office and work was passed from one person to another.

In 1939, Dr. Mohler was awarded the Twelfth International Veterinary Congress Prize for outstanding service to veterinary science and the veterinary profession. He was the first recipient of the AVMA award, the honor being conferred in 1943 following his retirement and "in recognition of outstanding and meritorious contributions to the veterinary profession and the American people through forty-six years of service as an investigator and administrator in livestock sanitary science."

He had been a member of the Permanent Committee of the International Veterinary Congress and was president of that organization in 1934. He was also a member of many scientific societies, such as the Society of American Bacteriologists, the Society of

Experimental Biology and Medicine, Washington Academy of Sciences, U. S. Livestock Sanitary Association (president, 1925), Royal Society of Medicine of Great Britain, Sigma Xi, Alpha Psi, Phi Kappa Phi. He was also made an honorary professor of the University of Havana in 1944. He held the honorary degree of doctor of science from Iowa State College (1920) and the University of Maryland (1929).

Dr. Mohler made numerous contributions to veterinary literature, translated a number of foreign texts, and was an editor of the well-known Hutyra and Marek's "Special Pathology and Therapeutics," 1912 and 1938 editions.

The deceased is survived by his widow, Mrs. Clara Mohler; his son, Dr. William M. Mohler (IND '23), Washington, D. C.; his daughter, Mrs. Walter C. Carrol, Fort Dix, N. J., and his brother, Dr. William H. Mohler, dentist, Philadelphia. His remains were buried at Rock Creek Cemetery, D. C. —L. A. M.

Reuben Hilty—1878-1952

Dr. Reuben Hilty of Toledo, Ohio, former AVMA president (1927-1928) and widely known as a professional man and civic



Dr. Reuben Hilty

leader, died on March 4, 1952, at the age of 74, after having been ill for about a year.

Born on a farm in Hancock County, Ohio, in 1878, he was educated in local schools and then was graduated from Ohio North-

ern University with the degree of B.A. He taught school for two years and then entered the Ohio State University where he obtained his D.V.M. degree in 1907. After practicing in Bluffton, Ohio, for two years, he moved to Toledo where he practiced until about three years ago. He was always active in professional and civic circles and was one of the founders of the Ohio State Board of Veterinary Examiners, on which he served for fifteen years.

He was official veterinarian for the Toledo Zoo, was widely known as a judge of horses and officiated at many shows; for two years he was chief judge of the trotting races at Fort Miami Raceway, being a member of the Toledo Driving Club that sponsored races there.

In 1935, Dr. Hilty was appointed to the Board of County Commissioners of Lucas County and served as president of the board for all but four years between 1935 and 1950. He held many state posts including the Anthony Wayne Parkway Board, Salary Adjustment Board, and the Maumee Watershed Conservancy District.

His record of active membership in the AVMA is noteworthy. He was a member

of the Committee on Education from 1928 to 1933; the Committee on Legislation from 1938 to 1943. Earlier, he had been secretary of the Section on General Practice (1917-1918) and of the old Section on College Faculties and Examining Boards (1919-1920).

In World War I, Dr. Hilty had a long record of highly capable service in the newly organized Army Veterinary Corps, both in this country and in France. He served for fifteen months in France and was assistant chief veterinarian of the A.E.F. In this capacity, he supervised the care of 100,000 horses and mules for the Army and was given the *Chevalier Legion D'Honneur* by the government of France for his services. He was also active as a civilian in the American Legion and in fraternal circles.

Dr. Hilty is survived by his two sons, John H. and Robert O., both of Toledo, and three sisters. Services were held at the Garner Mortuary on March 8 and interment was in New Stark, Ohio.

Sustained Farm Income Likely in 1952.

—The farm outlook for 1952 appears to be one of favorable prices and sustained net farm incomes, dependent on military spending proceeding at an expanding rate and farm costs not advancing too much.—*Feedstuffs*, Dec. 15, 1951.

Price Support for Wool.

Price support at 90 per cent of parity was available for wool after April 1, 1952. It is a loan, not a purchase, program. All wool purchased under previous programs has been sold. The agricultural act of 1949 requires this support to encourage an annual production of 360 million pounds of wool, which is above recent production.—*Exten. News Serv., University of Nevada*, March 3, 1952.

On February 28, the U. S. Bureau of Animal Industry announced the transfer of its section conducting beef cattle investigations from Beltsville, Md., to Denver, Colo. This should facilitate the coordination of projects under way at five other USDA field stations at Miles City, Mont., Fort Robinson, Neb., Fort Reno, Okla., Woodward, Okla., and Jeanerette, La.

Summer Course on the Electron Microscope

The summer laboratory course in "Techniques and Applications of the Electron Microscope" will be given June 16-28, 1952, by the Department of Engineering Physics, Cornell University.

The course is designed for research workers who have recently entered the field of electron microscopy or who are now planning to undertake research problems involving application of this instrument. Inquiries should be addressed to Dr. Benjamin M. Siegel, Department of Engineering Physics, Rockefeller Hall, Cornell University, Ithaca, N. Y.

National Farm Income.—The National Farm Income for 1951 rose to a new high of \$32 billion, but production expenses rose too, so the net income of nearly \$12 billion was about \$2 billion less than the all time high of 1947. California had the largest agricultural income followed by Iowa, Texas, and Illinois. The western states enjoyed a greater increase than did other sections. Livestock marketing was up 21 per cent from 1950, crop marketing was up 5 per cent.—*Univ. Nevada Agric. Exten. Serv.*, March 3, 1952.



A part of the business section along the boardwalk in Atlantic City.

CURRENT LITERATURE

ABSTRACTS

A Check List of Parasites in Georgia

A check list of all parasites found in the various species of domestic animals in Georgia has been compiled by Dr. Donald E. Cooperridder, Department of Veterinary Pathology and Parasitology, School of Veterinary Medicine, University of Georgia, Athens. The author expresses the hope that publication of this list will stimulate interest in others to find and identify parasites which he does not list but which may be present in that region.—[Donald E. Cooperridder: *Check List of Parasites of Domestic Animals Reported in Georgia. Vet. Med.*, 47, (Feb., 1952): 65-70.]

The Bacteriology of Erysipeloid

The published descriptions of *Erysipelothrix rhusiopathiae* vary a good deal, and there is no recent full comparison of human strains with those from animals.

As to the virulence of animal strains for man, little direct evidence exists.

Erysipeloid has for many years been recognized in Europe and America as an occupational disease of abattoir employees, butchers, kitchen workers, and those handling fish.

In these studies, *Ery. rhusiopathiae* was isolated from 7 of 20 patients with erysipeloid.

The seven strains were culturally and biochemically homogeneous and indistinguishable from veterinary strains.

They were distributed among several antigenic groups, and were relatively uniform in their sensitivity to each of various antibiotics. They were most sensitive to penicillin, aureomycin, and chloramphenicol.—[P. H. A. Sneath, J. D. Abbott, and A. C. Cunliffe: *The Bacteriology of Erysipeloid. Brit. M. J.*, (Nov. 3, 1951): 1063-1066.]

Influenza Viruses in the Respiratory Tract

It is generally considered that in human influenza the virus normally can not be detected in the respiratory tract for more than a week after the onset of the disease and that carriers beyond this period are rare. On the other hand, there has been a rather widespread belief that in swine influenza the virus commonly persists in pigs for many weeks and probably months after initial infection. Since the virus of swine influenza is closely related to the human virus and, since natural infection of swine with human strains has been reported, it is important from the point of

view of public health and of animal health to have definite information regarding the persistence of the virus of influenza (swine or human) in the respiratory tract of pigs.

Experiments to ascertain the persistence of swine influenza virus in pigs have shown that a mouse-adapted strain (C.1.) could be detected in nasal washings and lung suspensions of pigs only up to a week after inoculation. These results were obtained both when a clinical or a subclinical disease was produced by the virus alone, or when bacteria were mixed with a small inoculum of virus. A small experiment in mice gave similar results.

A mild disease was set up in pigs by the inoculation of a recently isolated strain of human influenza A. The virus was recovered from a pig killed on the seventh day, but not from pigs killed on the twenty-eighth day and thereafter.—[T. S. Gulrajani: *Studies on Respiratory Diseases of Pigs. III. Persistence of Influenza Viruses in the Respiratory Tract. J. Comp. Path. and Therap.*, 61, (1951): 101-117.]

Fluoride Toxicology

Tooth lesions are unique and sensitive symptoms of abnormal fluoride ingestion, when fluorides are ingested during the formation of the teeth. Because of the nonspecificity of many secondary symptoms, three laboratory tests are recommended as confirmatory evidence: analyses for fluorine in forage, urine, and bones. The fluoride content of the forage and urine will provide a measure of the current fluoride ingestion. The fluoride content of the bones provides an indication of the past exposure of the animal to fluorides.

In evaluating the effect of soluble fluorides from industrial operations, it is believed that a cow can ingest up to 1 mg. of fluorine per kilogram of body weight per day (as measured by careful sampling and analysis of forage and other feeds) for long periods without suffering any ill effect on milk production, weight gain, or general health.

Urine analyses from a normal herd will average less than 5 p.p.m. of fluorine. The average fluoride content of the urine of a herd must be well over 10 p.p.m. to indicate current ingestion high enough to cause an effect on milk production, weight gain, or health of cattle.

Normal bone content of cattle will be less than 600 p.p.m. of fluorine. It is considered that a cow must accumulate more than 4,000 p.p.m. of

fluorine in the metacarpal bones before enough will have been ingested to cause damage to the animal.—[H. J. Schmidt and W. E. Rand: *A Critical Study of the Literature on Fluoride Toxicology with Respect to Cattle Damage*. *Am. J. Vet. Res.*, 13, (Jan., 1952): 38-49.]

Parasitic Gastroenteritis of Cattle in Queensland

Parasitic gastroenteritis is rare among cattle over 2 years of age. An examination of more than 300 adult animals showed that this was due to the resistance to infection developed by most animals during the first eighteen months of life, when they experience very light infection.

Development of resistance depends on exposure to infection. The importance of an age factor in this reaction is unknown, although it seems certain that age has little influence up to 12 months of age.

A curious feature of this resistance is its manifestation against one species, while infections of other species are maintained or may even increase. *Cooperia* spp. is always the first species concerned, and it is a normal phenomenon for it to be eliminated several months before the other species attain their maximum abundance. *Haemonchus contortus* and *Bacillus radiatus* are frequently the last to show evidence of any decrease.

The factors responsible for the elimination of the adult helminths are unknown.—[F. H. S. Roberts: *Parasitic Gastro-Enteritis of Cattle, with Particular Reference to the Occurrence of the Disease in Queensland*. *Austral. Vet. J.*, 27, (1951): 274-282.]

FOREIGN ABSTRACTS

Traumatic Pericarditis

A technique is described for exploring the interior and exterior of the reticulum and pericardium from one incision. Anesthesia was obtained by alcohol narcosis (800 cc. of vodka intravenously) and novocaine infiltration. The surfaces of the reticulum and diaphragm were examined through an opening in the angle between the left costal arch and the xiphoid cartilage. It was also possible to explore the interior of the reticulum by drawing the rumen into the incision and performing a rumenotomy. A waterproof shroud was sewed to the rumen wall for this purpose.

To examine the pericardium, the incision was extended forward across the sternal ends of the seventh and eighth costal cartilages, and 6 to 8 cm. of each cartilage was resected. The operator could then pass his hand through the retropleural tissue on the floor of the thorax and into the mediastinum to reach the pericardium without entering the pleural cavity. The pericardial cavity was drained, irrigated, and explored. A rubber tube was left in the pericardium for postoperative irrigation and drainage.—[G. V. Degtyarev and

V. E. Mitsek: *Toward a Method of Simultaneous Operative Intervention in the Thoracic and Abdominal Cavities in Traumatic Reticulopericarditis*. *Veterinariya*, 28, (1951): 37-42.]—R. E. H.

Myoglobinuria in Horses

The author has previously described good results in the treatment of myoglobinuria by the intravenous injection of 50 ml. or more of 1 per cent solution of thiamine. This has been modified by using, in addition, vitamin C. A case is reported in which the animal was treated with 30 ml. of 1 per cent thiamine solution intravenously and 20 ml. subcutaneously, plus 10 ml. of 10 per cent vitamin C solution intravenously. This treatment is promising if given early and should be investigated further.—[Torsten Hallenborg: *Myoglobinuria in Horses*. *Nord. Vet.-med.*, 3, (1951): 642-645.]—A. G. K.

Surgery of the Teat and Streptococcal Infection

Surgical procedures on the teat for strictures of the canal may be complicated by infection, leading to acute mastitis but more often to a chronic process with atrophy. In 43 cases, it was found that 15 had streptococci in the milk prior to operation, but when examined two to three weeks after surgery, there were 17 — a total of 74 per cent that had streptococci in the milk. In a series of 89 cases, 23 of the cows had streptococci in their milk before operation. Each of the 89 animals was treated following surgery by injection of 100,000 units of penicillin into the gland. In addition, a tape impregnated with penicillin in vaseline was left in the wound for about twelve hours. In two to three weeks following treatment, only six of the 23 infected quarters were found to have streptococci, and there were only 11 new cases of infection — a total of 19 per cent infection.—[K. L. Jorgensen and P. Livoni: *Surgery of the Teat and Infection with Streptococci*. *Nord. Vet.-med.*, 3, 1951.]—A.G.K.

Fox Encephalitis in Norway

In countries other than America, fox encephalitis has been found in Denmark and Switzerland. It has been reported in France and Germany, but the diagnosis was not confirmed by infection experiments. In 1950, the disease occurred in Norway on four farms, with high mortality. The diagnosis was based on demonstration of intranuclear inclusions, inoculation experiments and, in one case, by complement-fixation tests using canine hepatitis antiserum. The virus of canine hepatitis produced typical fox encephalitis in foxes. Pathologic descriptions are given in detail.—[Rolf R. Svenkerud: *Fox Encephalitis, Its Demonstration in Norway and Contributions to the Pathologic Anatomy*. *Nord. Vet.-med.*, 4, (1952): 1-13.]—A.G.K.

Sublingual Hemorrhage in Infectious Anemia in Horses

The diagnosis of infectious anemia is difficult because many infected animals may show no symptoms. There may be a prolonged latent period before any signs of infection occur. In Sweden, the diagnosis is made by liver biopsy. This procedure is generally accompanied by little risk but it is time consuming. The instruments must be cleaned and sterilized before each use, which makes it impractical to examine many animals at one time. The presence of sublingual hemorrhages is a valuable aid in diagnosis. Multiple petechial hemorrhages on the under surface of the tongue is characteristic of infectious anemia. As a rule, they are most numerous toward the tip of the tongue. Of 71 horses in which infectious anemia had been diagnosed by liver biopsy, 63 (88%) had sublingual hemorrhages. Only 1 animal had distinct hemorrhages on the inferior surface of the tongue without typical liver changes. It is concluded that every horse with sublingual hemorrhages should be examined by liver biopsy.—[R. Akerstrom: *Sublingual Hemorrhage in Infectious Anemia in Horses*. *Nord. Vet.-med.*, 3, (1951): 659-674.]—A.G.K.

Tympanitis in Foals

The anatomy of the guttural pouch is briefly described. Pathologic alterations may be classed as inflammatory, hemorrhagic, tumors, foreign bodies, and tympanitis. Tympanitis is usually due to forceful coughing as a result of upper respiratory infection. Air forced into the pouch is retained there. There is a painless swelling in the parotid area which, on percussion, gives a tympanic sound. The animal stands with outstretched head and may have difficulty swallowing. Surgical treatment is difficult. The best results are obtained by opening the pouch through an incision made ventral to the external maxillary vein.—[H. F. Wirstad: *Tympanitis in the Guttural Pouch in Foals*. *Nord. Vet.-med.*, 3, (1951): 87-101.]—A.G.K.

Procaine Penicillin in Horses and Dogs

A comparison was made of the blood concentration of penicillin in horses and in dogs following single injections of 5,000 units per kilogram of body weight in (1) procaine penicillin in oil, (2) procaine penicillin in aqueous suspension, (3) a mixture of procaine penicillin and sodium penicillinate, and (4) procaine penicillin in oil plus 2 per cent aluminum monostearate. Use of the last material resulted in a greater prolongation of detectable penicillin. When this mixture was given in doses of 10,000 units per kilogram of body weight, penicillin could be detected in each of 6 horses after four days, and was still detectable in 3 of the horses after six days. In one animal, there was detectable penicillin in the blood after eight days. It was concluded that

this method of administering penicillin to horses is satisfactory and useful in an ambulatory practice.

In dogs, it was found that of the four preparations mentioned, the use of procaine penicillin in oil plus 2 per cent aluminum monostearate also resulted in a longer duration of blood concentration of the antibiotic. Doses of 5,000 units per kilogram of body weight were used for the comparison. In dogs, subcutaneous administration resulted in longer duration than when it was given intramuscularly. Of 5 dogs given 1 ml. of procaine penicillin in oil plus aluminum monostearate (300,000 units) per kilogram of body weight subcutaneously, there was detectable penicillin in the blood in all animals after seven days, and in 2 dogs it persisted for ten days. When given intramuscularly in the same amounts, it persisted in all animals for only five days; in 3 dogs for seven days and in one for only eight days.—[Sven Ullberg: *The Use of Procaine Penicillin in Horses and Dogs*. *Nord. Vet.-med.*, 3, (1951): 575-596.]—A.G.K.

Ear Cropping and Otitis Externa in Dogs

A comparison was made of the incidence of otitis externa in dogs with cropped ears and with normal dogs. Among 532 dogs with cropped ears, 6.7 per cent had otitis externa. Of 1,779 uncropped or normal dogs with erect ears, 4.2 per cent had otitis externa; and in 2,645 normal dogs with drooped ears, the incidence was 7.1 per cent. For 795 uncropped dogs with hairy semi-erect ears, the incidence of otitis externa was 13.3 per cent. It is concluded that cropping of the ears does not aid in preventing inflammation of the external auditory canal. The data suggest that dense hair may be a factor that permits development of otitis externa.—[O. A. Berg: *Ear Cropping and Otitis Externa in Dogs*. *Nord. Vet.-med.*, 3, (1951): 394-402.]—A.G.K.

Cholecystography in the Dog

Reviewing the development of cholecystography in human medicine, the author discusses various radio-opaque substances which have been administered to afford visualization of the gall bladder, tetrachlorophenolphthalein, tetrabromophenolphthalein, and tetraiodophenolphthalein. Due to the phenolphthalein component, these compounds have undesirable side-effects such as nausea, vertigo, etc. The author uses a compound which has superseded the above because of freedom from such disadvantages; *beta*-1 hydroxy-4-diiodophenyl 1-3, 5-*alpha* phenyl-propionic acid, sold commercially as biliselectan (Schering) in the form of compressed tablets. His technique is to administer 2 to 5 tablets at intervals of five minutes, after the dog has fasted for twenty-four hours. Prior to administration of the drug, a simple roentgenograph has been made to reveal possible stones or other obstructions. Following administration of the

opaque substance, new pictures are made at hourly intervals, twelve or fourteen hours giving the best opacity. Once the bladder has been visualized, the dog is given the yolks of two eggs (Boyden test) and a new radiograph is made thirty or forty minutes later. This permits functional evaluation of the emptying gall bladder. The successful achievement of this technique in 20 dogs is reported. In a single one, the gall bladder could not be visualized and it showed catarrho-hemorrhagic cholecystitis at necropsy.—[Mauricio Killner; *Cholecystography in the Dog. Rev. Fac. Med. Vet.*, 4, (1950):383-388.]—A.G.K.

Cytoplasmic Inclusions in Canine Distemper

Smears of tracheal and bladder mucosa from 60 cases of distemper revealed typical inclusions in 66 per cent of the animals. No inclusions were found in animals that did not have signs and symptoms of the disease.

The failure to find typical inclusions in one third of the animals could not be explained on any known factors such as age, sex, or breed, nor was the length of illness or variations in symptoms correlated with the absence of inclusions. No inclusions could be found in animals as a result of vaccination with the Laidlaw-Dunkin or Green vaccines.—[Nils Olof Lindgren; *Studies on Cytoplasmic Inclusions in Canine Distemper. Nord. Vet.-med.*, 3, (1951): 403-424.]—A.G.K.

Tunnel Skin Grafting for Excessive Granulations in Horses

A technique for implanting skin grafts in granulation tissue is described by drawings and photographs. Grafts are removed from the neck. The skin was cut off in an area which had been raised by injecting physiologic saline solution subcutaneously. The graft was placed on a strip of adhesive tape with the raw surface facing out. The tape bearing the graft was then pulled through a tunnel beneath the surface of the granulation tissue. The tape was anchored at either end. Eight days later, the granulation tissue overlying the graft and the adhesive tape were removed. Experimentally, good results have been obtained. In 2 clinical cases, each of a total of 11 grafts survived.—[Nils Obel; *Treatment of Excessive Granulations in Horses by Means of Tunnel Skin Grafting. Nord. Vet.-med.*, 3, (1951): 869-882.]—A.G.K.

Intramedullary Fixation in the Femur of Dogs

In comparison to man, the femur of dogs has a thin cortex and a large medullary cavity. Furthermore, the diameter of the medullary cavity may vary to a considerable extent in different parts of the bone. For these reasons, it may be difficult to prevent rotation of portions of a fractured

femur by an intramedullary pin. By means of illustrations, including x-rays, the author describes a procedure for inserting two pins in such a fashion that rotation is prevented and subsequent removal of the pins is avoided. The pins are inserted through different points on the proximal portion and are forced to different portions of the distal epiphysis. It is desirable to avoid the trochanteric fossa in order to prevent irritation of the adjacent tissues. After placement of the pins, the leg is fixed with bandages in a slightly flexed position to prevent weight-bearing without limiting movement of the joints. Twenty-five cases have been treated by this procedure with favorable results.—[Nils Obel; *Intramedullary Fixation of Diaphyseal Fractures of the Femur in Dogs by Means of Stainless Steel Pins. Nord. Vet.-med.*, 3, (1951): 723-747.]—A.G.K.

Intestinal Invagination in Cattle

A brief review is given of 63 cases of intestinal resection reported in the literature plus a discussion of etiology, symptoms, and treatment of intestinal invagination. A case report is presented of a pregnant cow in which exploratory laparotomy revealed early stages of peritonitis. An edematous and bluish invagination of a portion of small intestine was found. This was too fragile to separate and it was, therefore, resected. The resected portion was subsequently found to be 185 cm. long. The intestine was joined by a side-to-side anastomosis. Postoperative treatment included administration of 1,000,000 units of penicillin daily for four days. Abortion occurred the day following the operation, but otherwise recovery was complete and the animal subsequently became pregnant. Including this case, 48 of 64 reported cases recovered.—[Odd Skjerven; *Surgical Treatment of Intestinal Invagination in Cattle. Nord. Vet.-med.*, 4, (1952): 14-28.]—A. G. K.

Variant Virus of Foot-and-Mouth Disease from Venezuela

Cross-immunity tests in guinea pigs have not proved suitable for the differentiation of variants of types of foot-and-mouth disease virus. A variant of type O from Venezuela could not be clearly differentiated by complement-fixation tests. Differences in titer between standard O antigens were great enough so that any differences shown by the Venezuelan antigens were masked. However, the Venezuelan variant could be differentiated by cross-immunity tests in cattle. It is recommended that recently vaccinated cattle be maintained in order to test unknown viruses from outbreaks of the disease.—[E. Michelsen and K. Schjerning Thiesen; *A Variant Virus of Foot-and-Mouth Disease from Venezuela, Investigation of the Reliability of Type Differentiation. Nord. Vet.-med.*, 3, (1951): 1061-1072.]—A.G.K.

Food Poisoning from Milk

Twelve of 31 persons became ill one to six hours after eating mashed potatoes prepared with raw milk. Cultures revealed *B. streptococci* and toxigenic staphylococci. The presence of *B. streptococci* indicated that the milk came from cattle with mastitis. It was found that the milk came from 2 cows, 1 of which had mastitis due to *B. streptococci* and the other was shedding toxigenic staphylococci from one quarter. The staphylococci isolated from the potatoes were similar to those isolated from the udder of 1 cow as determined by bacteriophage susceptibility tests. Culture filtrates were toxic for kittens.—[Steinar Hauge: *Food Poisoning Caused by Enterotoxigenic Staphylococci from Milk*. *Nord. Vet.-med.*, 3, (1951): 931-956.]—A.G.K.

Toxoplasmosis in a Dog

Serologic tests for toxoplasmosis were positive in 10 of 54 dogs, but only 1 fatal case in dogs has been previously described in Denmark. This second case was an 11-week-old puppy with symptoms diagnosed as distemper with gastroenteritis. Necropsy revealed grayish nodules up to 5 mm. in diameter in the lungs, which were found to be necrotic foci containing *Toxoplasma*. The tracheal mucosa presented inclusion bodies that were indistinguishable from those of distemper. Ulcers of the gastric and intestinal mucosa contained many *Toxoplasma* organisms, as did necrotic foci in the myocardium, spleen, adrenals, brain, and lymph nodes. It is believed that the portal of entry may have been the alimentary tract. Concurrent infection with the virus of distemper may have increased the susceptibility to toxoplasmosis.—[Tage Møller: *Fatal Case of Toxoplasmosis in a Dog*. *Nord. Vet.-med.*, 3, (1951): 1073-1093.]—A.G.K.

Ileitis in Swine

Regional enteritis in man is characterized by thickening of the wall of the ileum, usually the terminal part. The mucosa may become hyperplastic, and there is granulomatous thickening of the submucosa. The etiology is unknown. A similar disease occurs in swine. The incidence in swine is not known but is probably less than 1 per cent. In 58 cases studied by the author, the intestinal lesions were confined to the ileum which was thickened and firm. Two general types were found: (1) a muscular type with increase in size of the muscle coat, and (2) a mucosal type in which the thickening of the wall of the ileum was accompanied by hypertrophy of the mucosa. Microscopically, the changes appeared to be a nonspecific chronic inflammatory process similar to that seen in man. It is possible that the lesions in man and in swine are the same. The gross and microscopic appearance of the disease in swine is illustrated in 23 photographs.—[Poul

Emsboe: *Terminal or Regional Ileitis in Swine*. *Nord. Vet.-med.*, 3, (1951): 1-28.]—A.G.K.

Abnormally Long Pregnancy in Cows

Nine cases of prolonged gestation in the Swedish Red and White breed of cattle were observed in one locality. Eight of the cases occurred in descendants of 1 bull. Three of the calves were delivered by instruments after 367, 433, and 473 days of gestation, respectively. In the other 6 cases, the cows were slaughtered after 332, 336, 354, 395, 477, and 510 days of gestation, respectively. Of particular interest was the abnormally large size of the extremities and the abnormal development of incisors in some of the calves. The general appearance was one of pituitary dysfunction, although the pituitary gland was not examined. It is suggested that prolonged gestation may be a hereditary defect and animals suspected of this characteristic should not be used for breeding.—[W. Hallgren: *Abnormally Long Pregnancy in Cows*. *Nord. Vet.-med.*, 3, (1951): 1043-1060.]—A.G.K.

Listeriosis in the Netherlands

The authors describe 25 strains of *Listeria monocytogenes* isolated in the Netherlands. They recorded 3 cases from man, 70 from cattle, 1 from the brain of a cow, 5 from calves, 4 from fetuses, 3 from pigs, 1 from a rabbit, 1 from a fur fox, 6 from fowl, and 1 from a canary. These cases came from all parts of the country.—[C. A. van Dorssen and J. Jansen: *On the Practical Importance of Listeria Infection*. *Tijdschr. voor Diergeneesk.*, 76, (1951): 756-767.]—L. V. E.

Brain Involvement from Listeriosis in Cattle

Pathological and bacteriological investigations of the cerebrums of 3 heifers presenting identical symptoms, i.e., ataxia, constrained and circular movements, diminished sensibility of the skin, disturbed vision, and dullness, demonstrated that *Listeria monocytogenes* can be isolated from triturated cerebral substance in nutrient broth after incubating in a cooler at about 4 C. for a considerable time. The meningo-encephalitis caused by *Listeria* was clinically indistinguishable from "a mental case" which showed an extra-dural brain abscess in a case of auto-intoxication caused by overeating. The frequency, in Holland, of listeriosis in different species of small animals and aborted fetuses indicates that more cases of cerebral infections caused by this microbe might be diagnosed in cattle and sheep if the bacteriological enhancement technique of Gray, Stafseth, and Thorp were applied more generally.—[A. V. I. Schaaf, J. J. de Jong, and J. M. de Jong: *Listeria Monocytogenes as a Possible Cause of a Brain Involvement in Cattle*. *Tijdschr. voor Diergeneesk.*, 76, (1951): 751-756.]—L. V. E.

Meningo-Encephalitis in Swine

The authors isolated hemologic streptococci from six outbreaks of infectious meningo-encephalitis in swine (age 1-6 months). In another outbreak, streptococci were isolated from the brains of 2 aborted fetuses. The histologic examination disclosed meningo-encephalitis. The causative organisms fermented lactose and trehalose but did not ferment sorbitol. Sodium hippurate was hydrolyzed. Penicillin resistance *in vitro* was variable. Meningo-encephalitis was experimentally induced by intravenous and intracerebral injections with the isolated strains.—[J. Jansen and C. A. Van Dorssen: *Meningo-Encephalitis in Swine Caused by Streptococci*. *Tijdschr. voor Diergeneesk.*, 76, (1951): 815-832.]—L. V. E.

BOOKS AND REPORTS

Nutrition and Climatic Stress

This book has particular reference to man, but there are parts that may be applied to domestic animals.

It is known that nutritional requirements of domestic animals vary for growth, maintenance, the type of work done, lactation, etc.; likewise, they may change from one environment to another, e.g., season of the year, altitude, and different latitudes in the same hemisphere. This is true also of man.

The book tells in detail the requirements of man in hot and cold climates, respectively, for water, proteins, vitamins, and minerals; for example, vitamin C is related to stress. Enlarged adrenal glands can be prevented in rats and guinea pigs exposed to cold if large doses of ascorbic acid are administered. Tests have also been conducted in man and animals concerning their requirements at high and low altitudes for these substances.

The discrepancy in some results between man and experimental animals is thought to be due to the fact that climatic stress applied to animals is often more severe than that applied to man. Experimentation on animals will have to be perfected or standardized with man before animal data obtained under climatic stress can be applied to man.—[*Nutrition and Climatic Stress*: By H. H. Mitchell and Marjorie Edman. Cloth. 244 pages. Illustrated. Charles C. Thomas, Springfield, Ill. 1952. Price \$6.75.]—M. J. SWENSON.

Antibodies and Embryos

The authors report some clever surgical intervention in the intrauterine circulation of rabbit embryos by which they prove that certain immune antibodies, and other proteins which are transferred from the dam to the fetus, do not pass

through the placenta, but are apparently secreted first into the uterine lumen and picked up by the fetal vitelline circulation. A brief review of the physiology of reproduction in the rabbit and the morphology of its embryos, with a comparison of some details with those of other species, makes it interesting reading.

The book's practical significance lies in the information it gives in specie differences in the time and method of transfer of immune antibodies from the dam to the offspring, either in the fetal or neonatal state.—[*Antibodies and Embryos*: By W. F. R. Brambell, W. A. Hemmings, and M. Henderson. 87 pages. Cloth. The Athlone Press, London. 1951. Price 12s 6d.]

Outline of Fundamental Pharmacology

This book was designed for students of chemistry, pharmacy, medicine, or research workers as a brief but broad outline of the principles of pharmacology. Modern drugs are mentioned only incidentally. It contains many references for collateral reading. It has only academic value for most veterinarians.—[*Outline of Fundamental Pharmacology*: By David Fielding Marsh. Cloth. 219 pages. Charles C. Thomas, Springfield, Ill. 1951. Price \$6.00.]

REVIEWS OF VETERINARY MEDICAL FILMS

Greentree Thoroughbred.—Sound, 16 mm., color, running time about thirty-two minutes. Written, directed, and produced by Bernard Livingston; available from Movies U. S. A., Inc., 729 Seventh Ave., New York 19, N. Y.

The purpose of this film is to show the great labor and intensive training needed to produce Thoroughbred race horses. Conception, birth, and development of the Thoroughbred is treated in detail. The film stresses the importance of teamwork between the farm hand, trainer, riders, grooms, and veterinarian.

The film begins with the introduction of several famous race horses. Background information of each horse includes such facts as by whom the horse was sired and its racing achievements.

The picture illustrates the technique of using a teaser to determine if the brood mare is in estrus. Further scenes describe the proper method of servicing — emphasizing that a well-run stud can increase the chances of foaling by as much as 85 per cent.

The actual birth of the colt is vividly shown and especially highlighted by the color in the film. The remainder of the film is devoted to the portrayal of the expert care that is required to produce a top race horse.

Perhaps too elementary for a professional audience, the film should prove of much interest to the layman.

THE NEWS

AVMA Gets Military Rank and Pay Legislation Introduced in Congress

Legislation has been introduced in the House of Representatives and in the Senate which, if enacted, will require the Armed Forces to commission veterinarians as first lieutenants immediately following graduation and will give officers in the Veterinary Corps the \$100 a month "bonus" pay which physicians and dentists in the Armed Forces receive. Representative Paul J. Kilday (D), San Antonio, Texas, introduced H.R. 6533 which contains only the provision relative to initial rank of commissions granted. Senator Lester C. Hunt (D), Lander, Wyo., a dentist, introduced S. 2738 which includes the rank and pay provisions. After introduction, both bills were referred to the Armed Services Committees.

The grade at which veterinarians can be appointed as reserve officers is governed by the Officer Personnel Act of 1947. This act established constructive service credits based upon length of professional education and experience. Due to the longer period of preprofessional training required in medicine and dentistry at that time, veterinarians were given one year less constructive service credit. Since all schools of veterinary medicine now require a minimum of two years of preprofessional college training, there is no longer any basis for this difference in constructive service credits. The legislation correcting this discrimination against veterinarians is, therefore, an amendment to the Officer Personnel Act of 1947.

The "bonus" pay provision is part of the Career Compensation Act of 1949. At the time this provision was made, it was designed to serve as a recruitment inducement for physicians and dentists and to halt their resignations from the Service. There was then no shortage of veterinarians in the Veterinary Corps. However, with the outbreak of the war in Korea, a need arose for veterinarians in excess of those who volunteered for military duty. Also, veterinarians along with physicians and dentists are registered under Public Law 779 (doctors draft) and subject to call through this amendment to the Selective Service Act. There is further justification for granting this "bonus" pay to veterinary officers who have volunteered for military service because many of them were told they would receive this bonus pay.

The Association is now working with vet-

erinarians in those states having representatives or senators on the Armed Services Committees in an effort to secure consideration of these bills by the committees. This consideration will be necessary before the legislation can come before the House of Representatives or the Senate for action. As both Committees have a full schedule, it will be difficult to get early consideration of these bills.

Veterinarians residing in states represented on the Armed Services Committee of either the House or the Senate should write to their congressmen and senators, expressing their interest in this legislation, urging the committee to grant an early hearing for these bills, and soliciting their support of the bills when they are being considered by the Committees.

Members of the House Armed Services Committee are:

DEMOCRATS

Carl Vinson (Ga.)
Overton Brooks (La.)
Paul J. Kilday (Texas)
Carl T. Durham (N. Car.)
Lonsdale G. Sasser (Md.)
James T. Heffernan (N. Y.)
L. Mendel Rivers (S. Car.)
Philip J. Philbin (Mass.)
F. Edward Hebert (La.)
Arthur Winstead (Miss.)
Frank R. Havenner (Calif.)
Melvin Price (Ill.)
O. C. Fisher (Texas)
Porter Hardy, Jr. (Va.)
W. J. Green, Jr. (Pa.)
Clyde Doyle (Calif.)
Edward deGraffenried (Ala.)
L. Gary Clemente (N. Y.)

Victor Wickersham (Okla.)

REPUBLICANS

Dewey Short (Mo.)
Leslie C. Arends (Ill.)
W. Sterling Cole (N. Y.)
Paul W. Shafer (Mich.)
Charles H. Elston (Ohio)
Jack Z. Anderson (Calif.)
William W. Blackney (Mich.)
Leroy Johnson (Calif.)
Leon H. Gavin (Pa.)
Walter Norblad (Ore.)
James E. Van Zandt (Pa.)
James T. Patterson (Conn.)
Paul Cunningham (Iowa)
William H. Bates (Mass.)
William E. Hess (Ohio)
Charles P. Nelson (Maine)

Members of the Senate Armed Services Committee are:

DEMOCRATS

Richard B. Russell (Ga.)
Harry Flood Byrd (Va.)
Lyndon B. Johnson (Texas)
Estes Kefauver (Tenn.)
Lester C. Hunt (Wyo.)
John C. Stennis (Miss.)
Russell B. Long (La.)

REPUBLICANS

Styles Bridges (N. H.)
Leverett Saltonstall (Mass.)
Wayne Morse (Ore.)
William F. Knowland (Calif.)
Harry P. Cain (Wash.)
Ralph E. Flanders (Vt.)

Dr. C. D. Van Houweling, assistant executive

secretary of the AVMA, has been in Washington representing the Association in regard to this legislation. The fine support given him by many members in the states which are represented on the Armed Services Committees has made it possible to have this legislation introduced. The passage of these bills will require the active support of all veterinarians to demonstrate that there is an interest in this legislation. As previously indicated, the facts justifying these amendments to the Officer Personnel Act and the Career Compensation Act are available and have been presented to the members of the Armed Services Committees. The "backlog" of legislation in Congress, plus the desire for an early adjournment, may make it difficult to secure passage of the bills.

Dr. Jones Appointed Principal of Ontario Veterinary College

Ontario's Minister of Agriculture, Col. T. L. Kennedy, has announced the appointment of Dr. Trevor Lloyd Jones to succeed the late Dr. A. L. MacNabb as principal of the Ontario Veterinary College. Dr. Jones has been acting principal since Dr. MacNabb became ill in August, 1950.

Born in Mold, North Wales, in 1909, Dr. Jones farmed in his native country until he came to Canada in 1929. After eighteen months of ranching in British Columbia, he entered the Ontario Veterinary College at Guelph, graduating from that institution in 1934. During the ensuing year, he worked as a graduate assistant with the Ontario Research Foundation in Toronto. In 1935, he took graduate work at the Institute of Parasitology, Macdonald College, Quebec, obtaining a master of science degree from McGill University.

From 1935 until 1939, Dr. Jones was an assistant in the Department of Pathology and Bacteriology at the Ontario Veterinary College. He was then named provincial animal pathologist, Alberta Department of Agriculture, with headquarters in Edmonton, and continued in this position until 1943.

Dr. Jones served in the Canadian Army in 1943 and 1944 with the rank of captain. During this period, he was engaged in a secret project under the Directorate of Chemical Warfare and Smoke.

After resuming his former position in Alberta as provincial animal pathologist for a year, Dr. Jones returned to the Ontario Veterinary College. He was a professor of pathology at the College until the summer of 1950, when he was appointed acting principal.

Dr. Jones was married in 1934 to Gertrude Sorby, daughter of the late Oswald Sorby who was prominently identified with the breeding of Clydesdale and Hackney horses at "Woodlands," Guelph, some years ago.

The new principal is active in veterinary and livestock organizations in Canada and in the United States. He is first vice-president of the Ontario Veterinary Association, and a mem-



Dr. Trevor Lloyd Jones

ber of the Research Council and resident secretary of the American Veterinary Medical Association. He is also a member of the Canadian Veterinary Medical Association Council, the United States Livestock Sanitary Association, and the American Society of Animal Production.

Dr. Jones was president of the Guelph Little Theatre in 1950-1951 and has taken part in several plays presented by that organization. He is a member of St. George's Anglican Church, the Guelph Rotary Club, and the Guelph Committee of the Canadian "Save the Children" Fund.

AVMA Represented at National Health Council Conference

At the 1951 AVMA annual meeting, application for membership in the National Health Council by the Association was approved by the Executive Board and the House of Representatives. At the annual meeting of the National Health Council, March 14, 1952, the application was approved, and the AVMA became an active member.

The National Health Council strives "to weave together the many threads of the public health movement within the United States into the fabric of total health protection. Its fundamental aim is to strengthen all health programs, governmental and voluntary, through the joint planning and action of its members."

Dr. C. D. Van Houweling, assistant executive secretary, attended the annual meeting of the N.H.C. in New York City on March 13 and

14, 1952. This was the first meeting of the N.H.C. attended by an AVMA representative. The program which covered a day and a half consisted of three panel discussions on the following subjects:

- 1) Citizen Participation in Community Health Planning Through Community Health Councils.

- 2) Health Planning for the Future.

- 3) Health Planning and Action on the State Level Through State Health Councils.

The Council was also addressed by the Assistant Secretary of State for economic affairs, the Hon. Willard L. Thorp, on "Health and Geography."

United States Committee on Fifteenth Veterinary Congress Formed

At the winter meeting of the Executive Board, formation of a United States Committee was authorized to cooperate with the Organizing Committee of the Fifteenth International Veterinary Congress to be held in Stockholm, Sweden, Aug. 9-15, 1953. The committee has now been organized under the chairmanship of Dr. W. A. Hagan who is the United States member of the Permanent Committee of the Congress. The members of the committee are:

- Dr. W. A. Hagan, chairman, New York State Veterinary College, Ithaca, N. Y.
 Dr. J. G. Hardenbergh, secretary, executive secretary of the AVMA, Chicago, Ill.
 Dr. R. S. Anderes, editor, *Veterinary Medicine*, Kansas City, Mo.
 Dr. C. A. Brandy, head, Department of Veterinary Science, University of Wisconsin, Madison, Wis.
 Dr. B. D. Blood, chief, Veterinary Section, Pan American Sanitary Bureau, Washington, D. C.
 Dr. H. E. Geyer, secretary, National Assembly of Chief Livestock and Sanitary Officials, Columbus, Ohio.
 Dr. G. H. Hart, dean, School of Veterinary Medicine, University of California, Davis, Calif.
 Dr. A. G. Karlson, secretary, Research Workers in Animal Diseases of North America, Rochester, Minn.
 Dr. R. A. Kelser, dean School of Veterinary Medicine, University of Pennsylvania, Philadelphia, Pa.
 Col. Wayne O. Kester, chief, Veterinary Division, Air Force Veterinary Corps, Washington, D. C.
 Dr. J. V. Lacroix, editor, *North American Veterinarian*, Evanston, Ill.
 Dr. E. E. Leasure, president, Association of Deans of American Colleges of Veterinary Medicine, Manhattan, Kan.
 Brig. Gen. J. A. McCallam, chief, Veterinary Division, Army Veterinary Corps, Washington, D. C.
 Dr. A. H. Quin, Kansas City, Mo. (representing the veterinary pharmaceutical and biological industry).

Dr. W. H. Riser, executive secretary, American Animal Hospital Association, Skokie, Ill.
 Dr. B. T. Simms, chief, Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C.

Dr. J. H. Steele, chief, Veterinary Public Health, Public Health Service, Atlanta, Ga.
 Dr. W. T. S. Thorp, chief, Section of Comparative Pathology, National Institutes of Health, Bethesda, Md.

Dr. J. R. Wells, president, AVMA, West Palm Beach, Fla. (representing veterinary practice).
 Dr. R. L. West, president, U. S. Livestock Sanitary Association, St. Paul, Minn.

Since it was not possible to call the whole committee together, several members who were in Washington on other business held an organization meeting there on Jan. 31 to Feb. 1, 1952. To facilitate the work, an executive subcommittee was designated comprising Drs. Hagan, Hardenbergh, and McCallam.

PRELIMINARY PROGRAM PLANS

At this meeting, the preliminary program of the Stockholm congress was reviewed and a number of reporters on various topics were tentatively selected. The program of this congress will follow the pattern of previous ones and the scientific papers will be presented at plenary sessions and section meetings. Plenary (general session) lectures are proposed on subjects in the following fields: infectious diseases; mastitis in cattle; food hygiene; metabolic disturbances; comparative pathology.

Nine section programs have been suggested by the Swedish Organizing Committee on the following principal topics:

Section I—Infectious Diseases (bacterial, virus, etc.)

Section II—Invasion Diseases (protozoal, helminthic, etc.)

Section III—Poisonings (industrial, plant, pesticides etc.)

Section IV—Metabolic Disturbances (physiological, deficiency, allergic, etc.)

Section V—Physiology and pathology of reproduction and lactation, including artificial insemination.

Section VI—Annual Husbandry (hygiene, genetics, etc.)

Section VII—Diagnosis, Therapy, and Surgery.

Section VIII—Food Hygiene (meat, milk, fish, etc.)

Section IX—International coordination problems (such as standardization of serodiagnostic methods and bacteriological preparations, quarantine regulations, production of educational films, etc.)

SUGGESTIONS FOR SPEAKERS INVITED

The nominations of reporters from the United States on various topics will be submitted to the Organizing Committee for final selection. A rule of the Congress is that proposed speakers must agree to be present to deliver their papers.

EUROPEAN TOUR PLANNED

The executive group of the U. S. Committee met in Chicago late in March to work on program participation of reporters from this country, and to consider proposals for tours to Europe in connection with the Stockholm congress. Four travel service bureaus were invited to submit proposals for travel by boat and plane, leaving this country shortly after the AVMA convention in Toronto, Canada, July 20-23, 1953. As soon as a definite tour plan has been developed and accepted, announcement of it will be made in all veterinary publications in the United States. The U. S. Committee will also publicize from time to time further information about the Fifteenth International Veterinary Congress as it develops.

Proposed Amendments to Constitution and Administrative By-Laws

The following amendments, which were either presented at the 1951 annual meeting of the House of Representatives (see "Proceedings Book," 1951: 356-361) or have been proposed since then, will be submitted to the House for action at its annual meeting in Atlantic City, N. J., on June 21, 1952. They are published again for the information of the membership and in accordance with Section 3, Article IX, of the Constitution, and Section 3, Article XIII, of the Administrative By-Laws.

Amendments Proposed in 1951

AMENDMENT No. 1

To amend Section 3, Article VIII, Administrative By-Laws, relating to election of Executive Board members, amend the second sentence to read: the ballots are counted at the end of *thirty* days.

Amend the third sentence so that it will read: the five nominees receiving the highest number of votes are declared the candidates whereupon a *second* ballot upon which the names of the five

candidates, their addresses, school and year of graduation, and type of professional work engaged in, are printed and sent to all members in the district with the request to mark an "X" before the name of their favorite candidate.

Amend the fourth sentence to read: At the end of a second *thirty* days, the polls are closed and the ballots counted by a committee of tellers selected from the membership by the executive secretary.

[Purpose.—(1) To shorten the time (now nearly five months) required to complete election of new members of the Executive Board. Experience shows that few, if any, ballots are received after the first thirty days in both the nominating and final elections. (2) To provide basic information to members about the men nominated for the Board. Requests for such information are received in each election from some members who do not know the candidates.]

AMENDMENT No. 2

To amend Sections 1-4, Article V, administrative By-Laws. The italicized words indicate the changes and additions.

Section 1.—The executive secretary, assistant executive secretary, *and editor* shall be employees of the Association. The executive secretary shall be charged with carrying out the directions of the Board of Governors provided for in section 5, article V of the constitution. The assistant executive secretary *and editor* shall be responsible to the Board of Governors through the executive secretary.

Section 2.—Election: The executive secretary, assistant executive secretary, *and editor* are elected (and may be dismissed for cause) by the Board of Governors (composed of the chairman of the Executive Board, the president and the president-elect) acting for, and under the direction of, the Executive Board.

The report of their election shall be included in the annual report of the Executive Board to the House of Representatives.

Section 3.—The executive secretary and *assistant executive secretary* shall be the general managers of the Association. They shall direct the entire business of the Association, including the clerical work of the Association and of the Executive Board.

Section 4.—The *executive secretary* shall act as *managing editor* of the JOURNALS and may, upon approval of the Executive Board, employ such editorial and secretarial assistance as the Executive Board may deem necessary for the conduct of his office.

The executive secretary shall present a written report of his activities and of the Association's affairs at each regular annual session of the Association.

The executive secretary and assistant executive secretary shall furnish the Executive Board bonds of such amount as said Board may prescribe.

[Purpose.—To make the By-Laws in question more applicable to the present organization and management of the central office and its work and to include the editor as one of the personnel employed by the Board of Governors as is actually the case.]

AMENDMENT No. 3

To amend Section 3, Article XIII, Administrative By-Laws, so that it will read as follows:

Excepting sections affecting the corporate officers provided in the Constitution, the Administrative By-Laws may be permanently amended at any annual session by submitting in writing, or by publication in the official JOURNAL, notice thereof to all the membership ninety days prior to the annual session at which final action is to be taken. Publication of proposed amendments in the JOURNAL shall be regarded as due notification to the members.

[Purpose.—To conserve space in the JOURNAL by eliminating the requirement that proposed amendments be published in three consecutive issues.]

AMENDMENT No. 4

To amend subparagraph (c), Section 1, Article XI, Administrative By-Laws, so that it will read:

Invitations for annual sessions shall be filed with the executive secretary not less than two years and four months prior to the date of the session concerned, and they shall be presented to the House of Representatives for action at least two inter-convention years before the meeting is to be held.

[Purpose.—To permit action on convention invitations as far in advance as may be desirable under present conditions.]

AMENDMENT No. 5

To amend subparagraph (d), Section 4, Article VIII, Administrative By-Laws, so that it will read:

The Board shall define the eligibility of all applicants for membership and act upon all charges of misconduct filed against members.

[Purpose.—To better define the duty of the Executive Board with respect to applicants.]

New Proposals

The following new proposals for amendments to the Administrative By-Laws were approved by the Executive Board at its meeting on Nov. 29, 1951, for submission to the House of Representatives at the annual meeting of the House, June 21, 1952. They are also published for the information of the membership in accordance with Section 3, Article XVIII, of the By-Laws.

NEW PROPOSAL No. 1

To amend subsection 12, Section 3, Article XII, Administrative By-Laws, so that the designation of the field of x-ray on the Research Council personnel shall be termed "radiology."

[Purpose.—The Research Council recommends the change as more correct terminology.]

NEW PROPOSAL No. 2

To amend various paragraphs and subparagraphs of Section 3, Article X, Administrative By-Laws, relating to dues so they will read as follows:

Subparagraph (c)—Change the first sentence so that it will read as follows: Dues shall be \$15 a year, of which \$6 is for payment of one year's subscription to the official JOURNAL of the Association.

Subparagraph (d)—The membership fee shall be \$5, and dues, which includes subscription to the JOURNAL, shall be \$15. Both are payable in advance at the time the application is filed. But, in order that the dues and subscription shall run from January 1 of each year, the following amounts shall be remitted with each application filed during a given month.

January	\$20.00	July	\$12.50
February	\$18.75	August	\$11.25
March	\$17.50	September	\$10.00
April	\$16.25	October	\$8.75
May	\$15.00	November	\$7.50
June	\$13.75	December	\$6.25

Of the annual dues of \$15, \$6 is to be credited as subscription to the JOURNAL.

[Purpose.—The foregoing amendments carry out the recommendation made in a resolution presented to the House of Representatives at its 1951 session by the Executive Committee of the House and adopted (see "Proceedings Book" 1951: 416-417), for the purpose of increasing the income of the Association, building up its reserves, and enabling it to expand its activities and services to the membership without incurring deficits.]

Note.—If these amendments are adopted, the Executive Board has already voted to increase the nonmember subscription price of the JOURNAL from the present \$7.50 a year to \$10.00 effective Jan. 1, 1953.

Mr. Russell G. Rongren Joins Association Staff

The Association is pleased to announce the employment, effective March 24, 1952, of Mr. Russell G. Rongren, B.Sc., to take up the work of Mr. J. J. Shaffer, whose resignation was announced in the April JOURNAL. Mr. Rongren comes to the AVMA from the National Safety Council in Chicago, where he has been assistant director of the service extension bureau since June, 1949. In that position, he carried on supervisory and interoffice relations duties, public relations, and research and sales promotion of membership services, including direct mail campaigns. Prior to working with the National Safety Council, he had experience as an accountant and law clerk, and in purchasing and inventory.

Mr. Rongren was on active duty with the U. S. Marine Corps for over three years in World

War II, about half of which was overseas with the First Marine Air Wing. He was honorably discharged as a technical sergeant, and saw



Mr. Russell G. Rongren

duty as supervisor of the control tower at Cherry Point, N. Car., the world's largest marine air base.

After returning from service, Mr. Rongren entered DePaul University and obtained his bachelor of science degree from its College of Commerce in June, 1949, at the same time carrying on part-time work with a law firm and life insurance company.

His work with the Association will include general office supervision, public relations, and membership service and promotion activities, fields in which he has had special experience.

Executive Board Nominations in Districts I and IX

Nominating elections in Executive Board Districts I (Canada) and IX (the New England States and New York) were completed on March 24, 1952. Drs. W. A. Young and E. R. Maschgan of Chicago served as tellers to count the ballots and certified the five nominees receiving the largest number of ballots as follows:

DISTRICT I

- Dr. J. Gordon Anderson, Calgary, Alta.
- Dr. Orlan Hall, Ottawa, Ont.
- Dr. J. A. Henderson, Guelph, Ont.
- Dr. T. Lloyd Jones, Guelph, Ont.
- Dr. Robert H. Wright, Dundas, Ont.

DISTRICT IX

- Dr. L. A. Corwin, Richmond Hill, N. Y.
- Dr. M. G. Fincher, Ithaca, N. Y.
- Dr. George H. Hopson, Millbrook, N. Y.
- Dr. Edwin Laitinen, West Hartford, Conn.
- Dr. C. P. Zepp, Sr., New York City, N. Y.

Official election ballots were mailed April 1 to all members in the two districts; the polls will close on May 31, 1952. The two successful candidates will serve for five-year terms beginning at the conclusion of the annual meeting in June. The late Dr. Andrew L. MacNabb was the incumbent in District I, and Dr. Edwin Laitinen is the incumbent in District IX.

STUDENT CHAPTER ACTIVITIES

California Student Club.—The following is a resumé of the University of California Veterinary Student Club activities for the fall semester, 1951-1952.

Dean Hart welcomed the 52 members of the freshman class at a smoker on Sept. 24, 1951. On October 11, **Drs. J. L. Gidley and P. A. Lee**, Sacramento, discussed "The Practice of Small Animal Medicine," and a motion picture on local anesthesia in the dog was shown.

On November 8, **Dr. J. W. Britton**, Oakdale, told of some "Do's and Don't's of Large Animal Practice." Two short motion pictures, "Skeletal Fixation with the Stader Splint" and "Outbreak," were shown at the December 13 meeting.

First semester officers were: **Charles H. Burger**, president; **Roy J. Cobble**, president-elect; **Ernie Makino**, vice-president; **Miss Evelyn Dean**, secretary; and **Bill Kortum**, treasurer. The following served as class representatives: **Herbert Piper**, senior; **Jack Pflock**, junior; **George Knox**, sophomore; and **Bill Rushworth**, freshman.

On Jan. 10, 1952, the following officers were elected to serve during the second semester: **John Shirley**, vice-president; **Bill Kortum**, president-elect; **John Chapman**, secretary; and **Kenneth Erwin**, treasurer.

The midwinter meeting of the California Veterinary Medical Association was held on the campus on January 28-30, and practitioners desiring students as summer help held interviews with those students wanting such experience.

s/EVELYN DEAN, Secretary.

• • •
Cornell Chapter.—At a meeting of the Cornell Student Chapter of the AVMA on February 26, **Dr. R. E. Habel**, of the Department of Anatomy, was elected faculty advisor to fill the unexpired term of **Dr. A. M. Mills**. **Dr. Habel** will serve in that capacity until regular elections in 1953.

At the regular election on March 11, the following officers and faculty advisor were elected: **J. Ellis Croshaw**, president; **Louis Shor**, vice-president; **Helen Coates**, secretary; **Benjamin Rasmusen**, treasurer; and **Dr. John Bentinck-Smith**, Department of Pathology, faculty advisor.

s/LOUIS SHOR, Retiring Secretary.

Georgia Chapter.—During the first semester of the 1951-1952 school year, the following speakers addressed the University of Georgia Student Chapter of the AVMA. **Dra. John H. Scruggs**, U. S. Public Health Service, Atlanta, Ga.; **William A. Elinburg**, Lawrenceville, Ga.; and **R. C. Klussendorf**, Commercial Solvents Corp., Terre Haute, Ind., who discussed "The Value of the AVMA to Us."

s/PRESTON M. GIVENS, *Secretary*.

Michigan Chapter.—The following officers will serve the Michigan State College Student Chapter of the AVMA during the second semester of the 1951-1952 school year: Donald E. Spotts, president; Kenneth Soncrainte, vice-president; George S. McClarnon, president-elect; Ronald W. Waldby, secretary; George A. Bergman, treasurer; Lyle E. Moffit, sergeant at arms; and Dr. Roger Brown, faculty advisor.

s/GEORGE F. LYNCH, *Retiring President*.

Missouri Chapter.—The University of Missouri Student Chapter of the AVMA met on March 10 to hear **Dr. Fred McKinney**, chairman of the Psychology Department, discuss "Human Needs and Drives." A business meeting was held after the literary program.

s/JOSEPH O. MINNICK, *Secretary*.

Ontario Chapter.—On February 22, the Ontario Veterinary College Student Chapter of the AVMA staged its annual banquet. **Dr. T. L. Jones**, acting principal of the College, introduced the guest speaker, **Dr. Alfred Savage** of the University of Manitoba. This meeting culminated the term's activities.

s/HAROLD C. GIBBS, *Secretary*.

WOMEN'S AUXILIARY

Good Reasons for Attending the AVMA Annual Meeting.—Because more and more women accompany their husbands to the AVMA annual convention each year, and likewise attend the business sessions of the Women's Auxiliary to the AVMA, and enjoy the entertainment provided by the local committee, several women were asked to answer the question, "Why Do You Like to Attend the AVMA Convention?" Their answers ought to bring out a large delegation of women at Atlantic City in June.

Attending the AVMA conventions is almost a tradition in our family. We enjoy seeing new places, getting new ideas, and renewing old friendships. Each section of the country has its distinctive scenery, foods, customs, and modes of entertainment which interest and relax us. The Opening Session especially appeals to me, for it is there that the scope of veterinary medicine as well as its advancement are exemplified; this generates a real pride in our profession.

Pleasant associations are there, too, with never a feeling of strangeness since our Auxiliary has

been so active in convention affairs. We make many new acquaintances which ripen into friendships as we meet again, year after year. The women's entertainment is always varied and of the highest type. Truly, it is a week of personal growth as well as fellowship and fun.—*Mrs. Donald D. Baker, Indianapolis, Ind.*

The annual AVMA convention is the highlight of my year. It is the Big Vacation—a vacation which affords an enjoyable trip to an interesting city, for renewing old and cherished friendships, and for forming new ones. I enjoy my husband's friends of school days and Army days, and their wives and families.

Affiliation with the Women's Auxiliary to the AVMA is a challenge to the wife of every AVMA member. I am proud to belong and to participate in its worthy and interesting projects—and being very human, I enjoy the entertainment planned for the women.

You wives of younger veterinarians must appreciate the many advantages afforded by attendance at an AVMA convention. If you have not tried it—you will love it. Make this an annual habit—bring the children. Let's meet in Atlantic City in June, 1952!—*Mrs. J. L. Wells, Blue Springs and Kansas City, Mo.*

I like to attend the AVMA convention because I like to make new friends; I like to renew old friendships and get better acquainted; I like to find out that other "vet's" wives are, also, having a hard time; I like to see how much progress our husbands are making in their field of medicine.

I am glad that I am one of a group that is assisting students to get an education; I am glad to attend the business meetings and learn just what other wives are thinking and planning; I am always happy when visiting new cities.

I like last, but not least, trips to places of interest and the entertainment planned by the local committee.—*Mrs. M. R. Blackstock, Spartanburg, S. Car.*

Occasionally, I hear a member say, "We don't go to AVMA conventions any more. They are so big we never see any of our state friends, so why go?" One can visit with local friends during the year; why pass up an opportunity to make new friends from various parts of the country?

More and more is planned in the scheduled programs that appeals to the entire family. It isn't difficult now to take the school-aged children along to AVMA meetings. This combination of a professional meeting and family vacation trip has almost justified "taking off" a week from the job of making a living. The Opening Session of the AVMA meeting is interesting to me. It seems to be a huge "melting pot" of the many fields of service in the profession. I am interested in learning about my husband's profession and feel that the AVMA is a reliable source of information.

Since I started glancing through my husband's veterinary publications, I have become so interested that I find myself reading each issue. The news items often include information about friends we seldom see. The ads and many of the articles are about or prepared by someone I have met at AVMA meetings. I can't pronounce all of the

medical terms and I don't understand all of the technical tables and graphs, but I have certainly increased my veterinary vocabulary by reading these magazines. And the alumni dinners held during the convention are the next best thing to a visit to the campus.

The local committee always plans interesting and relaxing entertainment during the entire convention. The sessions of the Auxiliary are a good place to learn about what the Women's Auxiliary to the AVMA is doing.

My friends outside the profession frequently ask me questions about veterinary medicine. I prefer to be able to explain what I know to be true than to say, "Why I don't know a thing about veterinary medicine. You will have to ask my husband." The public wants and needs to know more about the profession and we can be of help to our husbands if we can speak intelligently with a layman. Take a look at some of your husband's professional publications. Go to an AVMA annual convention.—*Mrs. J. E. Scatterday, Jacksonville 5, Fla.*

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There is an exciting aura of catching up with the swim of things at an AVMA convention. There is the opportunity to see and hear some of the men who have done progressive work that we have heard our husbands discuss. It is interesting to see how much the men are stimulated to try new methods and exchange ideas. But I must confess that this serious side does not receive much of my direct attention because the social affairs for the women are so enjoyable. The pleasure of making new friends and visiting with old ones, who all have so many interests in common, is the chief reason that I like to attend.—*Mrs. Wayne H. Riser, Skokie, Ill.*

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Having attended the AVMA conventions over a long period, my reasons are retrospective: the entertainment enjoyed; knowledge gained of another part of our country; the pride in belonging to a developing profession; the satisfaction in belonging to the Women's Auxiliary to the AVMA, and in having a small part in shaping its future.

The friendships formed at that first meeting are renewed at each succeeding convention, and treasured throughout the years. There are the good times we have had together; the sights we have seen; the funny clothes we have worn (in the past, of course); and the amusing things which have happened which forever after make us say, "Oh, do you remember?"—*Mrs. Ashe Lockhart, Kansas City, Mo.*

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For a number of years, we have planned for our entire family to attend the annual AVMA convention. Unfortunately, illness has not allowed all these plans to materialize. After each meeting, we gather information about the next one and plan an interesting family vacation and business trip. I look forward to meeting old friends, most of whom we see only at the annual meetings of the AVMA; and there are always new acquaintances to add to the list.

In recent years, I have passed up other activities in order to attend the Auxiliary meetings held during the AVMA convention. Because our state

has an auxiliary, I am interested in learning about the programs of other states.

The entertainment put on by the women's local committee in the convention city is always of high quality and most enjoyable.—*Mrs. Wm. T. Oglesby, Baton Rouge, La.*

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Arkansas Auxiliary.—The Women's Auxiliary to the Arkansas Veterinary Medical Association met at the Marion Hotel in Little Rock on Feb. 4, 1952. Mrs. John Haywood, president, conducted the business meeting. The group voted to make a contribution to the AVMA research fund. Following the luncheon, Mrs. R. W. Williams spoke on "Value of the Auxiliary to the Veterinary Profession."

New officers of the auxiliary are: Mrs. John C. Smith, Stuttgart, president; Mrs. R. W. Williams, El Dorado, vice-president; and Mrs. Rease Mitcham, Little Rock, secretary-treasurer.

s/MRS. REASE MITCHAM, Secretary.

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Kansas Auxiliary.—Projects of the Women's Auxiliary to the Kansas Veterinary Medical Association for 1952 are a continuance of the membership drive started in 1951, a "Hurry-Up and Wait" cook book, and an evening card party for the Women's Auxiliary to the Kansas State College Student Chapter of the AVMA.

Officers who will serve during 1952 are Mrs. Arthur D. Robb, Wamego, president; Mrs. M. L. Dietrich, Newton, vice-president; Mrs. L. W. Mohny, Pratt, secretary-treasurer and Mrs. E. L. Boley, Wichita, historian.

Chairmen for the membership drive, by districts, are: Mrs. R. J. Weaver, Great Bend (Western); Mrs. J. A. Bogue, Wichita (Central); Mrs. F. C. Cox, Holton, and Mrs. K. M. Curtis, Kansas City (Northeast); Mrs. J. A. Porter, Jr., Fredonia, and Mrs. Marvin Johnson, Paola (Southeast). Other appointments for 1952-1953 are Mrs. M. L. Morris, Topeka, national representative; Mrs. E. E. Leasure, Manhattan, alternate; Mrs. Ned Rokey, Mankato, cook book chairman; and Mrs. Frank Jordan, Abilene, counselor to the Women's Auxiliary to the Student Chapter of the AVMA.

s/(MRS. E. F.) FRIEDA LEASURE, Past-President.

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Indiana Auxiliary.—The Women's Auxiliary to the Indiana Veterinary Medical Association met at the Severin Hotel, Indianapolis, on Jan. 9-11, 1952, with 110 members and guests in attendance.

On the social calendar were a tea, a mixer, the annual luncheon, a "kaffee klatch," a lecture on "Quanta Color," and the annual banquet. President Mrs. C. R. Baumgartner, Spencer-ville, presided at the business meeting. Mrs. C. M. Rodgers, secretary of the Women's Auxiliary to the AVMA, invited all members to attend the national meeting in Atlantic City, June 23-26. A report of the Milwaukee meeting was given

by the alternate delegate, Mrs. W. G. Magrane, Mishawaka.

The following officers were elected for the coming year: Mrs. R. J. Hoskins, Indianapolis, president; Mrs. J. E. Carver, Michigan City, first vice-president; Mrs. W. E. Welbourn, Winchester, second vice-president; Mrs. G. R. Oldham, Kokomo, secretary; Mrs. George Burch, New Augusta, treasurer; Mrs. Paul T. White, Indianapolis, historian; Mrs. D. D. Baker, Indianapolis, parliamentarian; Mrs. C. R. Baumgartner, Spencer, delegate; and Miss Maxine Musselman, Denver, alternate.

The Auxiliary enjoyed an increase of 30 members this year.

S/MRS. C. R. BAUMGARTNER, *President*.

Michiana Auxiliary.—The Women's Auxiliary to the Michiana Veterinary Medical Association met March 13, 1952, at the Hotel Elkhart, Elkhart, Ind. After dinner, the members met with their husbands to enjoy slides of a big game hunt.

The meeting was then called to order by the new president, Mrs. Allen J. Winter, Benton Harbor, Mich., with 18 members and two guests present. Other new officers are Mrs. E. S. Weisner, Goshen, Ind., vice-president; Mrs. R. W. Worley, South Bend, Ind., secretary; and



The Women's Auxiliary to the Michiana Veterinary Medical Association at their March meeting.

Mrs. Hillary Hostrawser, South Bend, treasurer. The business meeting included a report by the executive board and other newly appointed committees on plans for the coming year.

S/MRS. R. W. WORLEY, *Secretary*.

Nebraska Auxiliary.—The annual meeting of the Women's Auxiliary to the Nebraska State Veterinary Medical Association was held at the Hotel Cornhusker in Lincoln on Dec. 5-7, 1951, with more than 100 women registering.

After the annual luncheon and business meeting, the women were entertained at a card party and were guests of their husbands at a banquet.

Fifteen new members joined the auxiliary, bringing the total membership to 49. A new project was begun—that of donating \$25 for purchase of library books to the four neighboring veterinary schools.

The new officers of the Auxiliary are: Mrs. G. L. Schaefer, Tekamah, president; Mrs. J. L. George, Chester, vice-president; and Mrs. Neal Hasselbalch, St. Edward, secretary-treasurer.

S/MRS. J. D. Cady, *Retiring President*.

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The officers of the Women's Auxiliary to the Ohio State Veterinary Medical Association are (left to right)—Mrs. J. T. Burris, Besley, vice-president; Mrs. Chas. J. Griffin, Springfield, president; and Mrs. Neil H. Myers, Wilmington, secretary-treasurer.

APPLICATIONS

Applicants — Members of Constituent Associations

In accordance with paragraph (b) of Section 2, Article X, of the Administrative By-Laws, as revised at the annual meeting of the House of Representatives, Aug. 18, 1951, in Milwaukee, Wis., the names of applicants residing within the jurisdictional limits of the constituent associations shall be published once in the JOURNAL.

The following applicants have been certified as members of the constituent association that has jurisdiction over the area in which the applicant resides. This certification was made by the secretary of the constituent association in accordance with Section 2, Article X, of the Administrative By-Laws.

BAY, ROBERT C.

College of Medicine, University of Utah,
Salt Lake City 1, Utah.

D.V.M., Colorado A. & M. College, 1950.

BOHAN, WAYNE A.

Kenyon, Minn.

D.V.M., Iowa State College, 1939.

BRUNSON, ROBERT A.

419 Washburn St., Corona, Calif.

D.V.M., Kansas State College, 1928.

BURNETTE, PETER F.

4012 Laguna St., Coral Gables, Fla.

D.V.M., Alabama Polytechnic Institute, 1940.

- CALDWELL, NANCY L.
Silver Ho Farm, Rt. 1, Short Creek, W. Va.
D.V.M., Ohio State University, 1943.
- CARDREY, EDWARD AUSTIN
398 Atlantic Ave., Trenton 9, N. J.
V.M.D., University of Pennsylvania, 1945.
- CUNNINGHAM, WILLIAM WEBSTER
1740 Forty-seventh Ave., St. Petersburg, Fla.
D.V.M., Alabama Polytechnic Institute, 1943.
- DORSETT, HUBERT Q.
1070 West Salisbury, Asheboro, N. Car.
D.V.M., Alabama Polytechnic Institute, 1940.
- GOLDBERG, NORBERT N.
Gen. Del., Bothell, Wash.
D.V.M., Friederich Wilhelm's University of
Berlin, 1905.
- GREEN, WILLIAM E.
702 E. Evergreen Ave., Olivia, Minn.
D.V.M., Michigan State College, 1949.
- HECTORNE, RONALD L.
R. F. D. 3, Bridgeton, N. J.
D.V.M., Ohio State University, 1928.
- KRIFF, F. A.
P. O. Box 206, Pemberville, Ohio.
D.V.M., Cincinnati Veterinary College, 1915.
- LITTLE, RALPH B.
Box 497, Princeton, N. J.
V.M.D., University of Princeton, 1914.
- LORBER, MARTIN G.
930 Northwest Blvd., Winston-Salem, N. Car.
D.V.M., Alabama Polytechnic Institute, 1937.
- MOSSMAN, ROBERT C.
Dysart, Iowa.
D.V.M., Kansas State College, 1942.
- WHITE, LEROY L.
221 Livestock Exchange Bldg., Ogden, Utah.
D.V.M. St. Joseph Veterinary College, 1921.
- WILLIAMS, MARION M.
Hebron, Ill.
D.V.M., Kansas State College, 1921.
- VERSLUIS, HENDRIK
American Embassy, Tehran, A. P. O. 205, P.
M., N. Y.
D.V.M., New York State Veterinary College,
1935.
- YOUNG, COLQUITT F.
5056 Dixie Gardens, Shreveport, La.
D.V.M., Texas A. & M. College, 1937.

Applications — Not Members of Constituent Associations

In accordance with paragraph (b) of Section 2, Article X, of the Administrative By-Laws, as revised at the annual meeting of the House of Representatives, Aug. 18, 1951, in Milwaukee, Wis., notice of all applications from applicants residing outside of the jurisdictional limits of the constituent associations, and members of the Armed Forces, shall be published in the JOURNAL for two successive months. The first notice shall give the applicant's full name, school, and year of graduation, post office address, and the names of his endorsers.

Second Listing

- Kerby, Duron R., 345 Lerma, Apt. 203,
Mexico, D. F.

U. S. GOVERNMENT

Veterinary Personnel Changes.—The following changes in the force of veterinarians in the U. S. Bureau of Animal Industry are reported as of March 21, 1952.

NEW APPOINTMENTS

- Leopold Buyvid, New York, N. Y.
George Carnal, Los Angeles, Calif.
Arthur A. Cuthbertson, Sacramento, Calif.
Harry L. Gibson, Columbus, Ohio.
Robert J. Glass, Mexico City, Mex.
George A. Johnson, Fort Dodge, Iowa.
Robert F. Kieldsen, Chicago, Ill.
Thomas J. Quinlan, Denver, Colo.
James A. Rudolph, Cincinnati, Ohio.
Irwin W. Schwartzman, New York, N. Y.
Albert L. Seng, Los Angeles, Calif.

CANCELLATIONS

- Charles S. Hansen, San Francisco, Calif.
Wilkie H. Lee, Houston, Texas.
Irwin W. Schwartzman, New York, N. Y.

RESIGNATIONS

- Robert D. Bullock, San Francisco, Calif.
Leopold Buyvid, Newark, N. J.
Thomas H. Calvin, Mexico City, Mex.
Philip R. Des Rosiers, Seattle, Wash.
Gerald Diamant, Mexico City, Mex.
William P. Doherty, Trenton, N. J.
Clarence B. Erickson, St. Paul, Minn.
William B. Fleming, Montgomery, Ala.
Thomas J. Grennan, Jr., Boston, Mass.
Robert C. Jacobs, Mexico City, Mex.
James T. Johnstone, Washington, D. C.
Ralph V. Kelling, Denver, Colo.
Roland S. Mackenzie, Indianapolis, Ind.
John D. Morton, Little Rock, Ark.
Harvey F. Page, Indianapolis, Ind.
Richard A. Penkert, St. Paul, Minn.
Milford R. Seymour, St. Paul, Minn.

RETIREMENTS

- Arthur A. Cuthbertson, Sacramento, Calif.
Percy W. Hudson, Atlanta, Ga.
Ernie C. Hughes, Baton Rouge, La.
Hugh E. Mullen, Madison, Wis.
Virgil W. Routzong, Piqua, Ohio.
James A. Rudolph, Cincinnati, Ohio.
Raymond Steinmetz, Indianapolis, Ind.

DEATHS

- James R. Barry, Storm Lake, Iowa.
Fredrick F. Meads, Topeka, Kan.
James A. Sullivan, Fort Worth, Texas.

TRANSFERS

- D. Warner Anderson, from New York, N. Y., to Storm Lake, Iowa.
Walter F. Ball, from Cleveland, Ohio, to Gouverneur, N. Y.
Henry J. Boyer, from Bartow, Fla., to Richmond, Va.
Frank W. Crawford, from Austin, Minn., to Fort Worth, Texas.
John A. Ellens, from Omaha, Neb., to Detroit, Mich.
Timothy J. Foley, from Harrisburg, Pa., to Buffalo, N. Y.
Timothy J. Foley, from Buffalo, N. Y., to Cleveland, Ohio.
Harold L. Geick, from Waterloo, Iowa, to St. Louis, Mo.
Charles G. Haber, from Rochester, N. Y., to Piqua, Ohio.
Melvin J. Hatter, from Gouverneur, N. Y., to Baltimore, Md.
William D. Hoffmaster, from South St. Joseph, Mo., to Butte, Mont.

Otto E. Jung, Jr., from St. Louis, Mo., to Chicago, Ill.
Roman Kurylas, from Baltimore, Md., to Sioux Falls,
S. Dak.

James D. Lyddy, from Butte, Mont., to Winona, Minn.
Francis J. Mulhern, from Mexico City, Mex., to Yuma,
Ariz.

John C. Pase, from El Centro, Calif., to Yuma, Ariz.
Renato C. Salerno, from South St. Joseph, Mo., to
Omaha, Neb.

Ernest E. Saulmon, from Yuma, Ariz., to Baton Rouge,
La.

Raymond Schuentrup, from Boise, Idaho, to Des Moines,
Iowa.

William J. Sullivan, from Richmond, Va., to Providence,
R. I.

Thomas E. Utley, from Baltimore, Md., to Rochester,
N. Y.

Clifton L. Whittington, from Dubuque, Iowa, to San
Diego, Calif.

Henry F. Winiecki, from Portland, Ore., to Butte, Mont.
Samuel F. Zickfoose, from Topeka, Kan., to Kansas
City, Kan.

Dr. Helvig Receives Appointment.—Dr. R. J. Helvig (ISC '41), Washington D. C., has been appointed assistant chief of the Milk and Food Branch, and also was designated veterinary public health consultant to the Division of Sanitation, United States Public Health Service. This appointment carried with it a promotion to the grade of senior veterinarian.

Dr. Stein Succeeds Dr. Johnstone in Inspection Service.—Dr. Joseph S. Stein (API '39) succeeded Dr. James T. Johnstone (OSU '36) as chief of the Inspection Facilities Section of the Federal Meat Inspection Service, BAI, on March 1, 1952, when Dr. Johnstone resigned to accept a position with the Allbright-Nell Company of Chicago.

Dr. Stein has been area director of federal meat inspection activities in Montana, Wyoming, Utah, Colorado, North Dakota, South Dakota, Nebraska, and the western half of Iowa. He will continue in his position as area director. His new duties will include examination of specifications of new plants and revisions or extensions of existing plants under federal inspection.

S/C. H. PALS, Assistant Chief,
Meat Inspection Division.

AMONG THE STATES AND PROVINCES

Arizona

State Association.—The annual meeting of the Arizona Veterinary Medical Association was held in Tucson at the University of Arizona on Feb. 5-6, 1952. Dr. W. J. Pistor, of the University of Arizona faculty, made available the new student union building for the meeting.

The guest speakers were **Drs. W. L. Boyd**, University of Minnesota, St. Paul, president-elect of the AVMA; **Frank Bloom**, Flushing,

N. Y.; **Robert Schalk**, Los Angeles, Calif.; **Bartly P. Cardon**, University of Arizona, Tucson; and **W. J. Pistor**.

Drs. J. L. Hinds and **E. L. Courtright**, of Tucson; and **Drs. W. E. Merritt**, **C. Mikkelsen**, and **Bela Marriassy**, of Phoenix, participated in a clinic during the second day of the meeting.

Social activities included a cocktail hour, the banquet, and dancing at the Hotel Santa Rita.

New officers of the Association are **Drs. L. N. Butler**, Glendale, president; **D. Fox**, Phoenix, president-elect; and **R. W. Adams**, Tucson, secretary-treasurer. The following members were elected to the executive committee: **Drs. J. Carney**, Chandler; **E. R. Hinshaw**, Safford; and **A. A. Raimonde**, Mesa.

S/R. W. ADAMS, Resident Secretary.

California

American Animal Hospital Association.—The nineteenth annual meeting of the American Animal Hospital Association was held April 30-May 2, 1952, at the Huntington Hotel in Pasadena.

Guest speakers participating in the program were **Drs. Wesley Anderson**, Mayo Foundation for Medical Educational Research, University of Minnesota Graduate School, Rochester; **J. P. Carney**, Meridian, Miss.; **Carlos M. Cooper**, Jensen-Salsbery Laboratories, Inc., Kansas City, Mo.; **John B. Dillon** (M.D.), College of Medicine, University of California, Los Angeles; **Hilan F. Keagy**, Beverly Hills; **Fred J. Kingma**, College of Veterinary Medicine, Ohio State University, Columbus; **S. F. Scheidy**, Sharp & Dohme, Inc., West Point, Pa.; and **Richard D. Turk**, School of Veterinary Medicine, A. & M. College of Texas, College Station.

The following members also spoke on the program: **Drs. W. W. Armistead**, School of Veterinary Medicine, A. & M. College of Texas, College Station; **Charles E. Bild**, Miami, Fla.; **Waldo O. Brinker**, School of Veterinary Medicine, Michigan State College, East Lansing; **C. E. DeCamp**, Scarsdale, N. Y.; **Ivan C. Frederickson**, Hollywood, Fla.; **Harlan E. Jensen**, Cleveland, Ohio; **Robert P. Knowles**, Miami, Fla.; **William G. Magrane**, Mishawaka, Ind.; **Mark L. Morris**, Topeka, Kan.; **Ralph E. Ruggles**, Moline, Ill.; **Carl F. Schlotthauer**, Mayo Foundation for Medical Educational Research, University of Minnesota Graduate School, Rochester; **Gerry B. Schnelle**, the Angell Memorial Animal Hospital, Boston, Mass.; **Reginald A. Stocking**, Los Angeles, Calif.; **Myron A. Thom**, Pasadena; **John R. Wells**, Miami, Fla., president of the AVMA; and **James H. Yarbrough**, Miami, Fla.

S/LOUIS A. CORWIN, Public Relations Chairman.

Colorado

Conference for Veterinarians.—The thirteenth annual conference for veterinarians, sponsored

by the Colorado A. & M. College School of Veterinary Medicine, Fort Collins, was held Feb. 18-20, 1952.

Guest speakers at the conference were **Drs. W. L. Boyd**, School of Veterinary Medicine, University of Minnesota, St. Paul, president-elect of the AVMA; **J. W. Harrison**, Longmont; **P. H. Hinze**, Carnation Farms, Carnation, Wash.; **G. J. MacLean**, Pitman-Moore Co.; **N. J. Miller**, Eaton; **J. L. Palotay**, Eaton; **R. E. Pierson**, Saratoga, Wyo.; **R. E. Ruggles**, Moline, Ill.; **V. D. Stauffer**, Arvada; and **C. J. York**, Veterinary Virus Research Institute, Cornell University, Ithaca, N. Y.

Members of the faculty at Colorado A. & M. College who participated in the conference were **Drs. R. W. Davis**, **L. A. Griner**, **H. J. Hill**, **Rue Jensen**, and **R. H. Udall**.

S/J. W. HARRISON.

Delaware

New Castle County Society.—The regular monthly meeting of the Newcastle County Veterinary Medical Society was held in the Hotel Rodney, Wilmington, on March 12, 1952. The guest speaker was **Dr. Norman J. Pyle**, technical adviser for the Atlas Powder Co. in Wilmington. He discussed "Social and Economic Aspects of the South American Countries."

The newly appointed officers of the Society are: **Drs. Harvey Fell**, Wilmington, president; and **William V. Gallery**, Wilmington, secretary-treasurer.

S/WILLIAM V. GALLERY, *Secretary*.

Illinois

New Veterinary Science Unit.—Veterinary education in Illinois took one more step forward in February when second semester classes began in the newly completed veterinary science building at the College of Veterinary Medicine, University of Illinois, Urbana.

Of modern design, the new four-story structure has facilities for teaching, research, and

diagnosis of animal diseases. It also houses an auditorium which seats 277 persons, a library, and a museum.

The clinic and hospital of the veterinary college is housed in a 40-year-old remodeled cattle barn. Third and fourth year students will continue to study clinical and hospital courses in these temporary quarters until a new clinic and hospital building is provided. Funds for this building have not yet been appropriated.

The veterinary college, the newest college at the University of Illinois, was established by the board of trustees in 1944. The first class of 24 veterinary students was admitted in 1948, and in June these students will become the first veterinarians to be graduated from the University. All students at the college are residents of Illinois, and most of them are veterans of World War II.

At present, the college has 108 students. In addition to the 24 seniors, there are 22 juniors, 34 sophomores, and 28 freshmen.

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Cattle Mange.—During the 1951 International Livestock Show in Chicago, 17 cases of scabies were found in Illinois cattle shown.

Cattle mange may be caused by four different species of mites. At present, psoroptic mange mites, common scab, and chorioptic mange mites are the two most common types in Illinois. Psoroptic mange mites live in clusters on the skin surface and lesions spread in all directions; chorioptic mange mites live in clusters on the surface but usually remain localized in the limbs, tail, and brisket.

Benzene hexachloride is effective in the treatment of cattle affected with psoroptic, chorioptic, and sarcoptic mange but is less effective on the demodectic mite. The concentration is 1 lb. of the *gamma* isomer per 100 gal. of water. This is 4 lb. of 25 per cent lindane powder per 100 gal. of water, or 10 lb. of wettable BHC powder which contains 10 per cent *gamma* isomer. This is based on a very thorough application.



The newly completed veterinary science building at the College of Veterinary Medicine, University of Illinois.

Better results may be obtained by two applications approximately ten days to two weeks apart. In this case, use $\frac{1}{2}$ of the above amount per 100 gal. of water.—*From Exten. Vet., University of Illinois, Feb., 1952.*

Death of Mrs. O. Norling-Christensen.—Mrs. Olof (Edith Peterson) Norling-Christensen passed away Feb. 18, 1952, following a prolonged illness. She and Dr. Christensen (OSU '22), member of the AVMA Executive Board from District III, were married in 1930. Mrs. Christensen is survived by her husband, two daughters, Gerta and Harriet, and a son, Olof, Jr.; also, her parents, Mr. and Mrs. Oscar Peterson of Wilmette, and a sister, Mrs. Robert J. Cyrog of Skokie.

Funeral services were held at St. John's Lutheran Church, Wilmette, on February 21 with interment in Memorial Park Cemetery.

Mrs. Christensen had been active in both the AVMA and the Illinois State V.M.A. auxiliaries and was president of the latter at the time of her death.

Indiana

Ninth District Association.—Dr. A. Henry Craige, Pitman-Moore Co., spoke on "Treatment of Mastitis" at the February 22 meeting of the Ninth District (Ind.) Veterinary Medical Association.

New officers of the Association are Drs. Paul Little, Columbus, president; M. G. Talbert, Franklin, vice-president; W. A. Brown, Seymour, secretary; and A. S. Willard, Edinburg, treasurer.

s/J. L. KIXMILLER, *Resident Secretary.*

Small Animal Clinic.—On February 19, the Northeastern Indiana and the Wabash Valley veterinary medical associations held a small animal clinic in Huntington.

The following veterinarians participated in the program: Drs. F. R. Booth, Elkhart; S. Williamson, B. V. Allen, F. McClead, V. K. McMahan, C. W. Gum, and R. M. Haufer, all of Fort Wayne.

Dr. V. K. McMahan had charge of the program, and Drs. H. W. Dempsey and R. M. Hafner acted as hosts. The clinic was well attended.

s/J. L. KIXMILLER, *Resident Secretary.*

Tenth District Association.—At the February 21 meeting of the Tenth District (Ind.) Veterinary Medical Association in Richmond, Dr. M. M. Coble, president of the Indiana Association, spoke on the benefits of belonging to the state, and other professional, associations.

The following officers were elected at this meeting: Drs. L. A. Snider, New Palestine, president; John Templeton, McCordsville, vice-president; and Robert Miller, Richmond,

secretary-treasurer. Drs. L. W. Hinchman, Glenwood; Hugh F. Mingle, Pendleton; and H. L. Hensler, Carthage, were elected to the board of directors.

s/J. L. KIXMILLER, *Resident Secretary.*

Northeastern Association.—At the March 11 meeting of the Northeastern Indiana Veterinary Medical Association in Fort Wayne, Drs. C. O. Petry, Ossian; C. R. Baumgartner, Spencerville; and R. E. Allison, Decatur, comprised a panel on large animal practice. Dr. Geo. W. Gillie told of the seriousness of the outbreak of foot-and-mouth disease in Canada. Other topics discussed were the anthrax situation in Ohio, acetoneemia, and nutritional difficulties.

s/J. L. KIXMILLER, *Resident Secretary.*

Sixth District Association.—Mr. Clifford Autcliff, Lebanon, of the Prudential Insurance Co., was the guest speaker at the March 12 meeting of the Sixth District (Ind.) Veterinary Medical Association in Lebanon.

Officers of this Association are Drs. G. M. Blubaugh, Mechanicsburg, president; Thomas Freas, Granville, Ohio, vice-president; and Harry Blair, Brownsburg, secretary-treasurer. Dr. R. G. Hardin, Lebanon, was elected to the board of directors.

s/J. L. KIXMILLER, *Resident Secretary.*

Maine

Dr. Bush Joins Point Four Mission to Uruguay.—Dr. Donald Lee Bush (MSC '44), Augusta, whose professional career has included research into effects on animals of atomic bombing (Hiroshima, Japan), has joined a Point Four mission of technical cooperation in Uruguay.

He will be chief veterinary consultant in animal disease control, with emphasis on diseases retarding economic development of the livestock industry.

Dr. Bush has served in specialized capacities with the U. S. Department of Agriculture, in private industry, and as chief veterinarian of the U. S. Eighth Army in Japan, as well as with United Nations veterinary groups there.

The Point Four Program in underdeveloped areas is directed by the Technical Cooperation Administration of the Department of State. Dr. Bush will work directly with the Institute of Inter-American Affairs. The Uruguay program includes activities in agriculture, forestry, fisheries, and health and sanitation.

Michigan

Southeastern Association.—At the March meeting of the Southeastern Michigan Veterinary Medical Association, Dr. Arthur Cooper, of the Michigan S. P. C. A., gave an interesting talk on the work of the society and told of

some of his experiences. The society has a veterinarian on the staff and places about 5,000 dogs in new homes, annually. The new owners are advised to consult their local veterinarian when they need service.

The Association had a booth at the annual dog show this year for the first time. Pathological specimens and x-ray pictures were on display, and literature on distemper and rabies was given to visitors. The booth was attended by wives of veterinarians.

S/S. KELLY, *Secretary.*

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Michigan State College To Dedicate Veterinary Medical Center Next Fall—X-Ray Therapy Unit Included.—Michigan State College is making plans for a fall dedication of its new \$2,400,000 veterinary medical center to be



Fig. 1—A cow suffering from actinomycosis is being prepared for treatment with the new 250,000-volt x-ray therapy machine in the veterinary medical clinic at Michigan State College. Those in the picture are (left to right) Dr. Andrew C. Wheeler, veterinary radiologist; Arthur Lewis, Grand Rapids, and Richard Kratochvil, Traverse City, both third-year veterinary students at M.S.C.

known as "Giltner Hall" in honor and memory of the late Dr. Ward Giltner, second dean of the institution's School of Veterinary Medicine, who so served for twenty-four years (1923-1947) until his retirement.

One of the more important pieces of new equipment will be a Maximar 250-III, a 250-kilovolt x-ray therapy unit which is expected to bring about more effective x-ray treatment of cancer in animals and research into all types of animal cancer, particularly those similar to human cases. The course in radiology will be

required for all veterinary students, under the direction of Dr. Andrew C. Wheeler, full-time veterinary radiologist, member of the faculty.

One of the objectives of the new veterinary



Fig. 2—"Linda," 9-year-old Irish setter, is being prepared for treatment with the new 250,000-volt x-ray therapy machine in the veterinary clinic at Michigan State College. Following the surgical removal of a breast cancer, "Linda" is undergoing x-ray treatments to prevent the spread of cancer to other parts of her body. Those in the picture are (left to right) Dr. Chester F. Clark, dean; Dr. Andrew C. Wheeler, radiologist; and Robert Coopes, Lansing, third-year veterinary student.

medical center is to coordinate all phases of veterinary medicine and related sciences under one roof so that classroom work, research, and clinical procedures can be utilized effectively. The capacity of the veterinary hospital will be increased from 40 to 70 large animals, thus improving the facilities for clinical instructions on farm animals. The new x-ray unit is also expected to be used in the therapy of various infections and inflammatory conditions in addition to the treatment and research of cancerous ailments.

Missouri

Kansas City Association.—The Kansas City Veterinary Medical Association met in the Hotel Continental on March 18 to hear Dr. Darrell E. Trump, Owatonna, Minn., discuss "Restraint Methods in Large Animal Practice."

New officers of the Association are Drs. Walter E. Dicke, Harrisonville, Mo., president; Fred B. Ogilvie, Kansas City, Kan., vice-president; and K. Maynard Curtis, Kansas City, Kan., secretary-treasurer.

The following long-time members of the Association were recently elected to honorary life membership: Drs. E. L. Young, Grandview, Mo.; H. L. Bussong, Belton, Mo.; and F. H. Suits, formerly of Odessa, Mo., now residing in Tampa, Fla.

S/K. MAYNARD CURTS, *Secretary*

Turkish Veterinarian Studies Nutrition at University.—Captain Osman Kocturk, in charge of the Bioanalytic Chemistry Military Veteri-



Captain Osman Kocturk

nary Academy in Ankara, Turkey, is a visiting professor of agricultural chemistry at the University of Missouri, doing research work related to human and animal nutrition and food inspection under Dr. A. G. Hogan.

Captain Kocturk received his degree in veterinary medicine in 1942 from Ankara University and a degree as specialist on bioanalytical chemistry in 1948 from the Academy. He started his work at the University of Missouri in May, 1951, and will leave in February, 1953, to teach at the Military Veterinary Academy.

Montana

Wheat or Cattle?—An agricultural extension specialist in Montana warns that the state must decide between raising more feed or fewer cattle. More land is being put to wheat production and less to hay, while the cattle population continues to rise. One county is cited which in 1921 marketed 3,000 tons of hay at \$30,000 and this winter imported 3,000 tons costing \$150,000.—*Montana State College Exten. Bull.*, March 5, 1952.

New York

New York City Association.—The regular meeting of the Veterinary Medical Association of New York City, Inc., was held at the New York Academy of Sciences on March 5, 1952. The motion picture, "Reproduction Among Mammals," was shown through the courtesy of Encyclopaedia Britannica Films, Inc. A panel discussion was held on the general subject "Clinical Problems Associated with the Genital Tract of the Dog," with **Dr. Lester R. Barto**, Basking Ridge, N. J., as moderator. Members of the panel were **Drs. Joseph DeVita**, New

Haven, Conn., "Breeding Failure"; **Laurence W. Goodman**, Manhasset, "Metritis and Pyometra"; and **Mark W. Allam**, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, "Dystocia."

Dr. Herbert L. Cox, Bronxville, was made a "retired member" of the Association.

s/C. R. SCHROEDER, Secretary.

Article About the Veterinarian.—"The Veterinarian" by Dr. A. Barton (ISC '40), of Long Island, in *Everywoman's* for March is an article on the role of the veterinarian in human affairs that deserves complimenting by the veterinary profession. By procuring a copy at the newsstand, the reader will get a true slant about what to tell the world about veterinary medicine at this day and age in a short article on the subject.—L. A. M.

ROTC Students Honored.—Robert K. Milkey and Joseph E. Paddock, senior students in the New York Veterinary College, Cornell University, Ithaca, were designated as distinguished military students at informal ceremonies held recently in Barton Hall at the University.



Colonel George S. Smith, professor of military science and tactics at Cornell, presents the ROTC award to Mr. Milkey (center). Dr. William A. Hagan (left), dean, New York State Veterinary College, and Colonel William E. Jennings, V. C. (right), officer in charge of the veterinary ROTC unit, witness the ceremony.

These students have established an enviable record during their four years of enrollment in the veterinary reserve officers training course at Cornell.

Ohio

Northwestern Association.—The forty-fifth annual winter meeting of the Northwestern Ohio Veterinary Medical Association was held at the Fort Meigs Hotel in Toledo on March 19, 1952, with 60 veterinarians in attendance.

During the morning session, the Toledo Veterinary Medical Association presented a small animal program, and **Dr. Fred H. Gasow**,

Birmingham, Mich., discussed "A Small Animal Hospital."

In the afternoon, the motion picture, "Outbreak," was shown, and **Drs. David O. Jones**, Ohio State University; **William S. Britton**, Tecumseh, Mich.; and **Wesley Keefer**, Springfield, presented a symposium on clinical aids, which consisted of thirty-minute presentations on mastitis, acetoneuria, and diseases of newborn animals. Later, these same speakers, with **Dr. L. W. Price**, Napoleon, presented a panel discussion called "You Make It."

The following officers elected at this meeting will serve for the ensuing year: **Drs. L. P. Miller**, Clyde, president; **C. W. Witty**, Elmore, vice-president; and **C. S. Alvanos**, Toledo, secretary-treasurer.

At the business meeting, it was decided to make this Association the representative association for the newly formed first district of Ohio.

s/CHARLES D. DIESEM, *Resident Secretary*.

North Central Association.—The North Central Ohio Veterinary Medical Association met at the office of **Dr. Wesley Ranck**, Marion, on Feb. 27, 1952. **Dr. Richard Rudy**, Ohio State University, Columbus, showed films and demonstrated several surgical techniques.

s/CHARLES DIESEM, *Resident Secretary*.

West Central Association.—On Feb. 27, 1952, the West Central (Ohio) Veterinary Association met in Lima. The program for the evening was confined to a discussion of the new hog cholera immunizing agents by **Drs. R. W. Williamson**, of Fort Dodge Laboratories, and **E. Craig**, representing Pitman-Moore Co.

Dr. Louis Harrod, Harrod, Ohio, is the president of this Association.

s/CHARLES DIESEM, *Resident Secretary*.

Pennsylvania

Recommendations on Rabies Control.—The following are recommendations of the Committee on Veterinary Public Health, Pennsylvania State Veterinary Medical Association, concerning rabies control:

1) It is the considered judgment of this Committee that in the present emergency the Rabies Control Program should be coordinated at State level, with full collaboration between the major agencies concerned: the Pennsylvania Department of Agriculture, the Pennsylvania Department of Health, and the Pennsylvania Game Commission.

2) The Committee recognizes the necessity for the reduction of the wild animal species (the fox) in which rabies is currently occurring, to a marked extent.

3) In view of the prevalence of rabies in the fox, it is to be expected that this disease will greatly increase in the dog, in infected areas, unless energetic measures of control are undertaken. In this connection, it is the view of this Committee that wide-spread vaccination of dogs be encouraged. While any of the approved types of vaccine may be employed, it is believed that special consideration should be given to the use of the chicken embryo virus vaccine, because data which has now been

assembled on a rather large scale, indicate that substantial immunity is obtained more rapidly and that it is probably more lasting.

4) That regulations and other activities with respect to the apprehension and elimination of stray dogs be enforced and intensified to the fullest extent possible; also that the restrictions of the movement of dogs in infected areas be advocated.

5) If present facilities for rapid and adequate handling of specimens for diagnosis are found to be overtaxed, provisions should be made for augmenting the same.

6) That an adequate program for the proper enlightenment of the public with respect to the measures necessary for handling the current emergency be carried out.

7) That the foregoing recommendations be and the same are hereby adopted by this Committee. The Committee directs that a copy of these recommendations be transmitted to the Honorable Miles Horst, secretary of agriculture; the Honorable Russell E. Teague, secretary of health; and the Honorable Thomas D. Fry, executive director of the Pennsylvania Game Commission.

By the Committee: **George W. Grim**, Ardmore, chairman; **Raymond A. Kester**, Philadelphia; **Paul V. Clarkson**, Lancaster; **R. D. Hoffman**, Bedford; **Roy F. Davenport**, Philadelphia.

Bucks-Montgomery Association.—**Dr. C. O. Neuhaus**, Philadelphia, discussed the current rabies situation in Pennsylvania at the March 12, 1952, meeting of the Bucks-Montgomery Veterinary Medical Association.

s/V. W. RUTH, *Secretary*.

Keystone Association.—The February 27 meeting of the Keystone Veterinary Medical Association was held in the Philadelphia County Medical Society Building, Philadelphia. The following speakers comprised the program: **Lt. Col. Robert H. Yager**, Washington, D. C.; **Mrs. Herbert Owens**, Audubon, N. J.; **John D. Beck**, University of Pennsylvania School of Veterinary Medicine, Philadelphia.

s/RAYMOND C. SNYDER, *Secretary*.

Western Association.—The Western Pennsylvania Veterinary Medical Association met at the Fort Pitt Hotel on Feb. 13, 1952. **Dr. J. Robert Brown**, president of the Pennsylvania State Veterinary Medical Association, discussed "Veterinary Practice Hints."

s/Geo. B. SCHUEY, *Secretary*.

Dr. Milo Appointed Director of State BAI.—Secretary of Agriculture Miles Horst announced on March 5 the appointment of **Dr. Howard A. Milo** (UP '16) as director of the Bureau of Animal Industry of the Pennsylvania Department of Agriculture. He has been serving as acting director since the retirement of **Dr. Charles P. Bishop** a year ago.

Dr. Milo has worked for the Bureau in various inspection fields since he graduated from the School of Veterinary Medicine at the University. In 1948, he was made chief of the tuberculosis eradication division in the Harrisburg office.

Bovine brucellosis eradication is now the major disease control project, and the state has

a brucellosis committee comprising representatives of each of its 66 counties. Farmer co-operation has placed Pennsylvania high among the states in control work on the diseases, an important factor to the state's \$732,000,000 livestock industry.—*Harrisburg Patriot*, March 6, 1952.

Texas

State Association Officers.—The following officers were elected at the fortieth annual meeting of the State Veterinary Medical Association of Texas at Corpus Christi, on Jan. 24-26, 1952: Drs. Melvin Callihan, Panhandle, treasurer; and Raymond Hander, Childress, third vice-president. Dr. J. W. Barton, Temple, is president of the Association. There were 165 members of the Association registered at this meeting.

S/E. A. GRIST, *Executive Secretary*.

West Virginia

Kyowva Association.—The regularly scheduled meeting of the Kyowva Veterinary Medical Association was held at the Hotel Prichard, Huntington, on March 13. Dr. Owen M. Karr, Portsmouth, Ohio, gave an interesting series of case reports and told a number of amusing anecdotes.

S/KARL MAYER, *Secretary*.

Wisconsin

Personal.—Captain Robert Schuknecht (ISC '43), formerly of Port Washington, Wis., is stationed at Fort Reno, Oklahoma, at a remount station engaged in procuring and processing mules and horses for shipment to Turkey.

FOREIGN NEWS

Spain

Congress of Zootechnics.—The Second International Veterinary Congress of Zootechnics was held in October, 1951, in Madrid. A total of 3,196 veterinarians and zootechnicians attended the congress where many problems related to the field of animal production were studied.

Among the 194 scientific papers presented were the following from the United States: "Hormone Therapy in Bovine Reproduction Problems" by Dr. W. G. Venzke, Ohio State University, Columbus; "Origin of the Germinal Epithelium and Normal Growth of the Seminiferous Tubules in Cattle" and "Hormonal Therapy in the Treatment of Sterility in the Bull" by E. Santamarina, graduate student, Ohio State University, Columbus; "The Influence of Thyroprotein in the Ration of Dairy Cattle" by Dr. R. P. Reece, Department of Dairy Industry, New Jersey Agricultural Experiment Station, New Brunswick; "Anemias

and Their Treatment in Small Animals" by Dr. J. L. Davidson, Upjohn Company, Kalamazoo, Mich.; and "A Guide to Small Animals Production" by Dr. H. Miller, director of Gaines Dog Research Center, Ithaca, N. Y.

EMERGENCY PLANNING

Information Bulletin (Vol. 3, No. 2), National Advisory Committee

1) PRIORITY I SPECIAL REGISTRANTS CLASSIFIED I-A AND I-A-O

Various state committees as well as the National Advisory Committee have been deeply concerned over those individuals who did not at the time of special registration apply for a commission and have not subsequently done so, while other more willing individuals have accepted commissions and many of them are now serving in the Armed Forces.

The National Advisory Committee has called these inequities to the attention of both the Armed Forces Medical Policy Council of the Department of Defense and the director of Selective Service System. Portions of their replies will be of interest to you. Major General Louis B. Hershey, director of the Selective Service System said in part:

I am in agreement that the inequities can only be prevented by each service transmitting their requirements to the Department of Defense and that the Department, through the President, use the Selective Service System for an orderly selection of those men found available and acceptable with favors to none.

Doctor Melvin A. Casberg, acting chairman of Armed Forces Medical Policy Council, replied in part:

When all Priority I type reserves have been called to active duty, or deferred for acceptable reasons, the Selective Service System will be requested to bring the remaining Priority I registrants into service before any Priority II reserves are called up. It is anticipated that this will occur within the next six months. Hence, the recalcitrant ones are only delaying their service until all the Priority I registrants who have accepted commissions are called up.

The following reply was sent by the chairman of the Health Resources Advisory Committee to Doctor Casberg. The reply is reproduced herewith:

March 3, 1952

Dear Dr. Casberg:

Your letter of February 19th in response to the copy of my letter to General Hershey of February 4th has been presented to the Health Resources Advisory Committee.

The Committee appreciates your review of the situation from pre-Korean days to the present time. It appreciates the careful delineation of Priority I and II reservists and special registrants.

However, the Committee is very much concerned with the problem as a whole. The Committee concurred, as did various professional organizations, in the need for legislation to meet the situation existing at midyear in 1950. It took an active part in the formation of what finally became Public Law 779.

This Law guaranteed that there would be active volunteering for commissions of the specified professional personnel — in the order of their relative obligation to the nation — with the alternative of induction as a private.

The Committee feels that nothing should interfere with this obviously certain method of meeting the situation.

Any active recruitment program (insofar as it is successful) interferes with this orderly arrangement for service.

Every recruitment means one more chance for the recalcitrant to avoid service while his more willing or more patriotic contemporary applies for a commission. The Committee is specially concerned over the fact that re-

cruciating programs are expensive both as to funds and medical personnel.

The Committee, therefore, has reaffirmed its position that the needs of the Armed Forces for commissioned personnel in the professions designated by Public Law 779 should be submitted to the Department of Defense for presentation to the President and transmitted to the Selective Service System, and that recruitment in these professions be abolished.

The position taken by the Committee as described above does not in any way interfere with the commissioning of any volunteer who requests immediate active duty.

Sincerely,

Howard A. Rusk, M.D., Chairman,
Health Resources Advisory Committee.

This information is submitted so that you will be fully cognizant of the continued efforts of the National Advisory Committee to facilitate the smoothest and most equitable operation of the program established by Public Law 779.

VETERINARY MILITARY SERVICE

Top Corps Officers Attend Fifth Army Veterinary Conference.—Brigadier General James A. McCallam, V.C., chief of the Army Veterinary Corps, accompanied by two officers of his staff, opened the Fourth Annual Veterinary Conference at Fifth Army headquarters in Chicago, March 24-28. His subject was "Current Trends in the Army Veterinary Service." Colonel George L. Caldwell, V.C., assistant chief of the SGO Veterinary Division, discussed "Veterinary Personnel Affairs," and Colonel Russell McNellis, V.C., chief of the SGO Meat and Dairy Hygiene Branch, spoke on "Meat

and Dairy Hygiene in the Veterinary Inspection Service."

Colonel John L. Owens, V.C., chief Fifth Army veterinarian, inaugurated the series of annual conferences in 1949 to acquaint personnel in the Fifth Army area with the latest developments in all phases of Veterinary Corps inspection procedures. Approximately 40 Veterinary Corps officers from the Middle West and the Army Surgeon General's office attended this year's sessions.

Veterinary Detachment Receives Unit Citation.—The 476th Veterinary Food Inspection Detachment, commanded by Major T. A. S. Hays, V.C., Athens, Ga., has been cited for exceptionally meritorious conduct in support of combat operations in Korea. This citation was awarded by General James A. Van Fleet, commanding general of the Eighth Army.

In spite of extremely adverse conditions of limited storage and refrigeration facilities, the members of the detachment were able to assure delivery of wholesome and adequate foods to the United Nations forces fighting in Korea.

Personal.—Colonel Daniel Stevenson (COR '34) has assumed his duties as veterinarian with the Third Army at Fort McPherson, Ga. During World War II, Colonel Stevenson saw service in Africa, Italy, France, and Germany. He spent more than four years as chief, U. S. Military Mission to the Republic of Panama, where he established a bureau of animal industry, an animal quarantine station, and the educational system for graduate Panamanian veterinarians, and various other educational programs for Panama.

Among his decorations are the Legion of Merit, the *Croix de Guerre*, and the *Vasco Nunez de Balboa of Panama*.

STATE BOARD EXAMINATIONS

Florida.—The Florida Board of Veterinary Examiners will hold an examination June 9-11, 1952, at the Everglades Hotel, Miami, Fla. No applications will be accepted after May 30, 1952. C. Paul Vickers, P. O. Box 141, Palatka, Fla., secretary.

Idaho.—The Idaho Veterinary Medical Examining Board will hold examinations for the licensing of veterinarians on June 10-11, 1952, at 9:30 a.m. in the State House, Boise, Idaho. For further information, write Dr. A. P. Schneider, 2417 Bannock St., Boise, Idaho.

Iowa.—The Iowa Veterinary Medical Examining Board will hold examinations for the licensing of veterinarians on June 16-17, 1952. Applicants are asked to be in the office of the Division of Animal Industry, State House, Des Moines, Iowa, not later than 8:00 a.m.

Veterinarians in Korea



Colonel Harry E. Van Tuyl of Leavenworth, Kan., (center) chief veterinarian of the Far East Command, is shown at the 55th Quartermaster Depot in Pusan, Korea, before a freight car containing food supplies destined for front line combat troops. Colonel Van Tuyl is accompanied by (left to right) Major Herman Tax of Levittown, N. Y., veterinarian for the Pusan Port; Major T. A. S. Hays of Smyrna, Del., base veterinarian at Pusan; Lt. Col. Mulford C. Lockwood of Williamstown, Mich., veterinarian of the U. S. Eighth Army; and Captain George Murray of Washington, D. C., veterinarian for 55th Quartermaster Depot.

on June 16. For further information, write Dr. H. U. Garrett, chief, Division of Animal Industry, State House, Des Moines 19, Iowa.

Missouri—The Missouri State Board of Veterinary Examiners will meet at the School of Veterinary Medicine, University of Missouri, Columbia, Mo., June 2-3, 1952, to conduct an examination of candidates for license to practice in Missouri. For further information, address Dr. H. E. Curry, Jefferson City, Mo.

Oklahoma—The Oklahoma Board of Veterinary Medical Examiners will hold an examination for license to practice veterinary medicine in Oklahoma at the School of Veterinary Medicine, Oklahoma A. & M. College, Stillwater, Okla., on May 6-7, 1952. Applications should be in the hands of the secretary by May 1. J. B. Corcoran, 127 N. W. 23rd St., Oklahoma City 3, Okla.

South Carolina—The State Board of Veterinary Examiners will hold an examination at the Clemson House, Clemson, S. Car., July 17-18, 1952, beginning at 9:00 a.m. on Thursday, July 17. All applications from those who wish to take the examination must be in the hands of the secretary two weeks before the meeting. H. L. Sutherland, Union, S. Car., secretary.

Texas—An examination for license to practice veterinary medicine in Texas will be held June 3-4, 1952, at the Veterinary Building, School of Veterinary Medicine, College Station, Texas. The written examination will start promptly at 8:00 a.m. on June 3. Applications must be in the secretary's office by May 10, 1952. Charles W. Koberg, Box 295, San Angelo, Texas, secretary.

Wyoming—An examination for license to practice veterinary medicine, surgery, and dentistry in Wyoming will be held at 9 a.m., June 16, 1952, in room 304 of the State Capitol Building, Cheyenne, Wyo. Applicants should contact Dr. G. H. Good, Livestock and Sanitary Board, Cheyenne, *ex officio* secretary.

BIRTHS

Dr. (OSU '51) and Mrs. Donald Ringley, Randolph Air Force Base, Texas, announce the birth of a daughter, Kathy Louise, on Jan. 5, 1952.

Dr. (ISC '43) and Mrs. A. Mack Scott, Long Beach, Calif., announce the birth of their first child, Cheryl Diane, on Jan. 16, 1952.

Dr. (API '43) and Mrs. Jack L. London, Mexico, D. F., announce the birth of a son, Richard Chapman, on Jan. 20, 1952. Dr. and Mrs. London also have two daughters, Jacqueline, 3½ years old, and Cindy, 1½ years old.

Dr. (COR '51) and Mrs. I. Tucker Burr, III, Wakefield, Mass., announce the birth of their fourth child and first daughter, Jennifer, on Jan. 28, 1952.

Dr. (OSU '49) and Mrs. David Eglit, Long Beach, Calif., announce the birth of a daughter, Debra Harriet, on Feb. 8, 1952.

Dr. (API '43) and Mrs. J. A. McCrory, Ogallala, Neb., announce the birth of a daughter, Julie Anne, on Feb. 17, 1952.

Dr. (MSC '50) and Mrs. Russell M. Phillips, Mount Morris, Mich., announce the birth of a son, Mark Allen, on Feb. 23, 1952.

Dr. (TEX '41) and Mrs. Noah Mash, Roselle, N. J., announce the birth of a son, Ronald Samuel, on March 5, 1952.

DEATHS

★James R. Barry (ISC '29), 46, Storm Lake, Iowa, died Feb. 26, 1952. For several years, Dr. Barry had been employed by the Bureau of Animal Industry. He was admitted to the AVMA in 1929.

L. C. Beaumont (CVC '07), 71, Britt, Iowa, died Feb. 9, 1952. Dr. Beaumont had been a member of the AVMA.

Harry W. Brown (OSU '02), Gahanna, Ohio, died Oct. 19, 1951. Dr. Brown was a general practitioner.

★Ira C. Brown (KCV '10), 67, Coolidge, Ariz., died Feb. 9, 1952. Dr. Brown had practiced in Grinnell, Iowa, for nearly forty years. He was a member of the AVMA.

★D. M. Campbell (KCV '07), 72, Chicago, Ill., died March 27, 1952, after several months' illness. Dr. Campbell joined the AVMA in 1909 and had served the Association in various capacities. A complete obituary will be published in the June JOURNAL.

★Frank W. Chamberlain (COR '06), 74, Edinburg, Texas, died March 16, 1952. Dr. Chamberlain joined the teaching staff at Michigan State College, East Lansing, in 1911, as assistant professor of veterinary science. From 1919 to 1923, he served as acting dean of the School of Veterinary Medicine, and then was appointed head of the Department of Anatomy. He was named professor emeritus of anatomy upon his retirement in 1944. Dr. Chamberlain is the author of a book, "Atlas of Avian Anatomy," published in 1943, the only manual of its type in the field of poultry science. Dr. Chamberlain was a member of the AVMA from 1908 until his retirement in 1944.

★Indicates members of the AVMA.

★**Ernest Farr** (KCV '10), 74, Montezuma, Iowa, died Oct. 24, 1951. Dr. Farr had practiced in Montezuma for forty-one years. He was a member of the Iowa and Eastern Iowa Veterinary Medical Associations and of the AVMA. He is survived by two daughters and a brother.

Sebastian B. Fischer (NYS '31), Southold, L. I., died Dec. 6, 1951. Dr. Fischer was associate director of sanitation in the Suffolk County Department of Health.

Omer M. Fleenor (IND '14), Washington, Ind., died in November, 1951. Dr. Fleenor was a general practitioner.

Donald C. Graham (SF '18), 63, Gonzales, Calif., died Dec. 31, 1951. For several years, Dr. Graham was state meat inspector in the Monterey Bay area of California. He had also established a private practice and was well known in southern Monterey County where he worked for twenty-three years.

George Grossman (OSU '28), Gambier, Ohio, died March 2, 1952, of pneumonia. Dr. Grossman was the brother of Dr. J. D. Grossman of the Department of Veterinary Anatomy of the Ohio State University College of Veterinary Medicine. He is survived by his widow and a daughter.

George A. Handley (CVC '04), Ironton, Ohio, died recently. Dr. Handley had retired from active practice.

Charles C. Harrold (IND '12), Frankton, Ind., died in 1951. Dr. Harrold was a general practitioner but had retired several years ago.

Chas. Blain Helm (UP '06), 67, Camden, N. J., died Dec. 5, 1951. Dr. Helm had been employed by the Bureau of Animal Industry.

Andrew R. Hitchcock, 78, Woodsboro, Md., died Dec. 24, 1951, after an illness of six months. Dr. Hitchcock had retired from active practice. He is survived by a daughter and a son.

Frederick H. Hollingsworth (USC '04), 67, Council Bluffs, Iowa, died Jan. 2, 1952. Dr. Hollingsworth was a general practitioner.

William H. Houston (USC '17), 70, San Antonio, Texas, died Feb. 4, 1952. Colonel Houston entered the Army Veterinary Corps in 1917 as a second lieutenant, and was promoted through the grades, attaining the permanent grade of colonel on Nov. 27, 1939. He retired from active duty because of physical disability Sept. 30, 1945. He is survived by his widow and a son. Colonel Houston had been a member of the AVMA.

James H. Hutchins (NYA '05), 73, Abington, Conn., died Feb. 24, 1952, of injuries received

in automobile accident. Dr. Hutchins was a general practitioner.

Herbert E. Leach, Jr. (CVC '19), 60, Avoca, Iowa, died Feb. 7, 1952, after a long illness. A general practitioner, Dr. Leach had been a member of the AVMA.

Glenn W. Leahy (MCK '15), 55, Decatur, Ill., died Jan. 10, 1952. Dr. Leahy was a member of the Illinois State Veterinary Medical Association and had been a member of the AVMA.

★**George W. Lies** (OSU '14), 61, Findley, Ohio, died Feb. 27, 1952. Dr. Lies had conducted a large animal practice at Fort Recovery, Ohio, until June, 1951, when illness forced him to retire. He was a past-president of the Ohio State Veterinary Medical Association and had appeared on several programs at AVMA conventions. He is survived by his widow and two sons, one of which, John S., received his degree of veterinary medicine from Ohio State in 1950. Dr. Lies was admitted to the AVMA in 1920.

★**Roy E. Kluck** (MCK '15), 69, Rockford, Ill., died Dec. 30, 1951. Dr. Kluck was a member of the Illinois Veterinary Medical Association and of the AVMA.

★**W. F. Kuester** (MCK '16), 70, Rice Lake, Wis., died Feb. 21, 1952. Dr. Kuester was a general practitioner. He was admitted to the AVMA in 1951.

A. H. Kyle (CVC '92), 91, Highland, Ill., died Sept. 30, 1951. Dr. Kyle had practiced in Highland for nearly sixty years.

Wm. S. Lett (IND '14), Scottsburg, Ind., died recently. Dr. Lett was a general practitioner.

William A. McAnuff (Ont '51), 26, Buda, Ill., died Dec. 5, 1951, of injuries received in an automobile accident. Dr. McAnuff was a general practitioner.

William H. Mahoney (AVC '06), 75, Rochester, N. Y., died Sept. 14, 1951. Dr. Mahoney was a member of the New York State and Western New York Veterinary Medical Associations and had been a member of the AVMA.

★**F. F. Meads** (GR '11), 69, Wichita, Kan., died March 3, 1952, after a lingering illness. Dr. Meads practiced twelve years in Cherokee, Okla., and then joined the Bureau of Animal Industry and was assigned to meat inspection in Detroit. He was later transferred to field work in Iowa, where he remained for ten years. He joined the field force in Kansas about twelve years ago and worked until recently on sheep and cattle scab investigations.

Dr. Meads was admitted to the AVMA in

1915 and served as resident secretary from Oklahoma in 1923-1926. He is survived by his widow and a son.

John T. Mooney (CIN '16), Crown City, Ohio, died recently. Dr. Mooney was a general practitioner.

***L. N. Morin** (CVC '16), 58, Clinton, Ill., died suddenly March 3, 1952. Dr. Morin practiced at McLean, Ill., from 1916 until 1936 when he moved to Clinton. His son, Dr. R. L. Morin has been in partnership with him since receiving his D.V.M. degree in 1944. Dr. Morin was a past-president of the Illinois State Veterinary Medical Association and had the distinction of having attended every meeting of that organization from the time he received his D.V.M. degree until the time of his death. Dr. Morin was admitted to the AVMA in 1918.

***E. S. Norton** (UP '11), 62, Greenville, Miss., died Feb. 21, 1952. Dr. Norton served as president and secretary of the Mississippi Veterinary Medical Association and was a member of the AVMA. He is survived by his widow, two daughters, and a son.

O. O. Osbourne (OSU '16), 67, Crooksville, Ohio, died Dec. 3, 1951. Dr. Osbourne was a general practitioner.

William T. Patton (ONT '06), 70, Coutts, Alta., died late in 1951. Dr. Patton was a Dominion government official until his retirement in October, 1951.

Charles H. Phillips (STJ '13), Hutchinson, Kan., died recently.

John A. Phillips (TH '12), Denver, Colo., died Dec. 5, 1951. Dr. Phillips was employed by the U. S. Bureau of Animal Industry.

Richard H. Power, Wahiawa, Oahu, T. H., died Dec. 5, 1951. Dr. Power was a retired officer of the Veterinary Corps, U. S. Army.

E. M. Prather (OSU '07), 67, St. Louis, Mo., died Feb. 25, 1952. Dr. Prather spent a few years in federal service and then resigned to begin a private practice at Weatherford, Okla. In 1931, he entered the city meat inspection service of St. Louis, where he was employed at the time of his death.

George S. Price (ONT '97), 81, Fort Erie, Ont., died Feb. 1, 1952. Dr. Price retired from active practice in 1947.

***Rafael F. Santa Maria** (HAV '10), 61, Camaguey, Cuba, died of a heart attack Nov. 18, 1951. Dr. Santa Maria was a member of the National Veterinary Association of Cuba and was admitted to the AVMA in 1927.

Lieutenant Colonel H. M. Savage (GWU '17), 75, Portland, Ore., died Dec. 18, 1951. Lieutenant Colonel Savage had been a member of the AVMA.

Frederick W. Shaffer (MCK '07), St. Louis, Mo., died Aug. 26, 1951. Dr. Shaffer was a small animal practitioner.

James A. Sullivan (CVC '18), Fort Worth, Texas, died Jan. 25, 1952. Dr. Sullivan served with the U. S. Bureau of Animal Industry for several years.

***Robert E. Taylor** (CIN '16), 57, Hendersonville, N. Car., died Feb. 14, 1952, after an illness of several months. Dr. Taylor was a member of the North Carolina Board of Veterinary Medical Examiners from 1934 to 1950, and was president of the state association during 1945-1946. Shortly after coming to Hendersonville in 1925, he was appointed city health and sanitary officer, and in this capacity he drafted the first public health laws for the city. He served with the health department until his death, along with an extensive practice and the operation of a small animal hospital.

Dr. Taylor was a member of the North Carolina and Southern Veterinary Medical Associations and of the AVMA.

Charles S. Thompson (NYA '04), Perth Amboy, N. J., died Sept. 26, 1951. Dr. Thompson served as health officer of the New Jersey Department of Health at Perth Amboy from 1919 until his retirement in 1948.

L. E. Thompson (MCK '14), 68, Franklin, Ky., died Dec. 15, 1951. Dr. Thompson had practiced in Franklin for thirty-five years. He is survived by his widow.

***Henry W. Turner** (UP '93), 79, New Hope, Pa., died Feb. 25, 1952. Dr. Turner practiced a few years in Bucks County, Pa., and then became chief veterinarian with the Barnum and Bailey Circus. For the past twenty-three years, he has served with the Pennsylvania Bureau of Animal Industry. Dr. Turner was a member, and past-president, of the Pennsylvania Veterinary Medical Association and was a member of the AVMA for forty years. He is survived by his widow.

William J. Wadsworth (ONT '91), 86, Cobleskill, N. Y., died Oct. 3, 1951.

George W. Worrell (STJ '17), 56, Susanville, Calif., died Dec. 11, 1951. After his retirement from the Division of Animal Industry of the California State Department of Agriculture in 1951, Dr. Worrell entered private practice. He had been state veterinarian of California for eight years.

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COMING MEETINGS

Notices of Coming Meetings must be received by 4th of month preceding date of issue

Eastern Iowa Veterinary Association, Inc. Annual all-day practitioners clinic. Hawkeye Downs, Cedar Rapids, Iowa, May 13, 1952. N. R. Waggoner, Olin, Iowa, secretary.

Michiana Veterinary Medical Association. Bi-annual veterinary clinic. South Bend Sale Barn, South Bend, Ind., at 1:00 p.m. on May 22, 1952. R. W. Worley, 3224 Lincoln Way West, South Bend, Ind., secretary.

Australian Veterinary Association. Annual general meeting. Veterinary School, University of Queensland, Brisbane, Australia, May 25, 1952. H. McL. Gordon, 53 Martin Place, Sydney, Australia, secretary.

Texas Conference for Veterinarians. The School of Veterinary Medicine, A. & M. College of Texas, College Station, Texas, June 5-6, 1952. R. D. Turk, chairman.

Alabama Polytechnic Institute. Annual conference for veterinarians. Alabama Polytechnic Institute, Auburn, Ala., June 5-7, 1952. R. S. Sugg, dean.

Kansas State College. Annual Conference for veterinarians. Kansas State College, Manhattan, Kan., June 6-7, 1952. E. E. Leasure, dean, School of Veterinary Medicine.

Georgia Veterinary Medical Association. Annual meeting. Hotel Oglethorpe, Savannah, Ga., June 15-17, 1952. Chas. C. Rife, 420 Edgewood Ave., N.E., Atlanta, Ga., secretary.

North Carolina State Veterinary Medical Association. Annual meeting. Ocean King Hotel, Atlantic Beach, Morehead City, N. Car., June 16-17, 1952. Clyde W. Young, Mocksville, N. Car., secretary.

Vermont Veterinary Medical Association. Annual summer conference. University of Vermont, Burlington, Vt., June 16-17, 1952. W. D. Bolton, Burlington, Vt., secretary.

California State Veterinary Medical Association. Annual June meeting. Arrowhead Springs Hotel, San Bernardino, Calif., June 16-19, 1952. Charles S. Travers, 3004 16th St., room 208, San Francisco 3, Calif., executive secretary.

American Veterinary Medical Association. Annual meeting. Ambassador Hotel, Atlantic City, N. J., June 23-26, 1952. J. G. Hardenbergh, American Veterinary Medical Association, 600 S. Michigan Ave., Chicago 5, Ill., executive secretary.

Wyoming Veterinary Medical Association. Annual meeting. Saratoga, Wyo., July 13-

15, 1952. Joe Browne, Box 960, Laramie, Wyo., secretary.

Northwestern Ohio Veterinary Medical Association. Annual summer meeting and clinic. Lugbill Sales Barn, Archbold, Ohio, July 16 (tentative), 1952. C. S. Alvanos, 1683 W. Bancroft St., Toledo 6, Ohio, secretary.

South Carolina Association of Veterinarians. Annual summer meeting. Clemson House, Clemson, S. Car., July 17-18, 1952. R. A. Mays, Columbia, S. Car., secretary.

Utah Veterinary Medical Association. Annual meeting. Logan, Utah, July 18-19, 1952. Paul V. Christofferson, P. O. Box 237, Pleasant Grove, Utah, secretary.

Idaho Veterinary Medical Association. Annual meeting. Sun Valley, Idaho, July 21-22, 1952. A. P. Schneider, Bureau of Animal Industry, Department of Agriculture, Boise, Idaho, secretary.

Kentucky Veterinary Medical Association. Annual meeting. Seelbach Hotel, Louisville, Ky., July 23-24, 1952. T. J. Stearns, Room 216, Livestock Exchange Bldg., Bourbon Stockyards, Louisville, Ky., secretary.

Montana Veterinary Medical Association. Annual meeting. Haver, Mont., July 24-26, 1952. E. A. Tunnick, Agricultural Experiment Station, Bozeman, Mont., secretary.

New York State Veterinary Medical Society. Annual meeting. Sagamore Hotel, Bolton Landing, Lake George, N. Y., Sept. 9-12, 1952. J. S. Halat, 804 Varick St., Utica, N.Y., executive secretary.

Canadian Veterinary Medical Association.

(Continued on p. 34)



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at work with one of
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25 lb. drum	.76 per lb.
150 lb. drum	.70 per lb.

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(COMING MEETINGS — continued from p. 32)

Fourth annual convention. The Algonquin, St. Andrews by-the-sea, New Brunswick, Canada, Sept. 15-17, 1952. A. B. Wickware, 1031 Carling Ave., Ottawa, Canada, executive secretary.

Pennsylvania State Veterinary Medical Association. Annual meeting. Pocono Manor Inn, Pocono Manor, Pa., Oct. 7-10, 1952. Dr. R. C. Snyder, Walnut St. and Copley Rd., Upper Darby, Pa., secretary.

Eastern Iowa Veterinary Medical Association. Annual meeting. Cedar Rapids, Iowa, Oct. 9-10, 1952. N. R. Waggoner, Olin, Iowa, secretary.

United States Livestock Sanitary Association. Annual meeting. Hotel Seelbach, Louisville, Ky., Oct. 29-31, 1952. R. A. Hendershott, 1 West State St., Trenton 8, N. J., secretary. Copies of the Annual Proceedings of the U. S. L.S.A. are available at \$5 per copy.

Southern Veterinary Medical Association. Annual meeting. Hotel Heidelberg, Jackson, Miss., Nov. 17-19, 1952. A. A. Husman, Raleigh, N. Car., secretary.

Regularly Scheduled Meetings

Bay Counties Veterinary Medical Association, the second Tuesday of each month. Richard L. Stowe, 149 Otsego Ave., San Francisco, Calif., secretary.

Cedar Valley Veterinary Association, the second Monday of each month (except July and August) at Black's Tea Room, Waterloo. F. E. Brutsman, Traer, Iowa, secretary.

Central California Veterinary Medical Association, the fourth Tuesday of each month. W. E. Smith, 516 Oatman, Sanger, Calif., secretary.

Central Carolina Veterinary Medical Association, the second Wednesday of each month at 7:00 p.m. in the O'Henry Hotel in Greensboro. Mr. Earl D. Adams, Greensboro, N. Car., secretary.

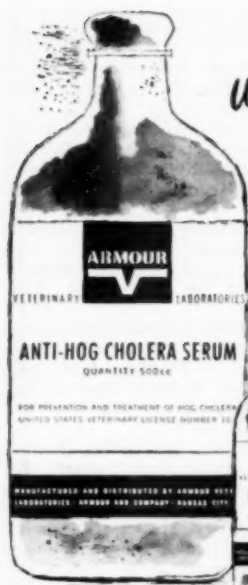
Chicago Veterinary Medical Association, the second Tuesday of each month. Robert C. Glover, 1021 Davis St., Evanston, Ill., secretary.

Coon Valley Veterinary Association, the second Wednesday of each month, September through May, at the Bradford Hotel, Storm Lake, Iowa. V. D. Ladwig, Sac City, Iowa, secretary.

Cuyahoga County (Cleveland, Ohio) Veterinary Medical Association, the first Wednesday of each month—September through May (except January)—at 9:00 p.m. at the Carter Hotel, Cleveland, Ohio. Roger W. Grundish, 4217 Mayfield Road, South Euclid 21, Ohio, secretary.

East Bay Veterinary Medical Association, bi-

(Continued on p. 36)



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(COMING MEETINGS — continued from p. 34)

monthly, the fourth Wednesday. Robert Clemens, 23352 Orchard, Hayward, Calif., secretary.

Fayette County Veterinary Association, Iowa, the third Tuesday of each month, except in July and August, at Pa and Ma's Restaurant, West Union, Iowa. Donald E. Moore, Box 178, Decorah, Iowa, secretary.

Florida, North-East Florida Veterinary Medical Association, the second Thursday of each month, time and place specified monthly. J. O. Whiddon, 829 San Marco Blvd., Jacksonville, Fla.

Greater St. Louis Veterinary Medical Association. Ralston-Purina Research Building, St. Louis, Mo., the first Friday in February, April, June, and November. W. C. Schofield, Dept. of Animal Pathology, Ralston-Purina Co., St. Louis 2, Mo., secretary.

Houston Veterinary Medical Association, Houston, Texas, the first Thursday of each month. Edward Lepon, Houston, Texas, secretary-treasurer.

Illinois Valley Veterinary Medical Association, the second Sunday evening of even-numbered months at the Jefferson Hotel, Peoria, Ill. S. M. McCully, Lacon, Ill., secretary.

Indiana Tenth District Veterinary Medical Association, third Thursday of each month. L. A. Snider, New Palestine, Ind., secretary.

Jefferson County Veterinary Society of Kentucky, Inc., the first Wednesday evening of each month, in Louisville or within a radius of 50 miles. F. M. Kearns, 3622 Frankfort Ave., Louisville 7, Ky., secretary.

Kansas City Small Animal Hospital Association, the first Monday of each month, at the Hotel Continental. T. M. Eagle, Parkville, Route 2, Mo., secretary.

Kansas City Veterinary Medical Association, the third Tuesday of each month, in the Hotel Continental, 11th and Baltimore, Kansas City, Mo. K. M. Curtis, 70 Central Ave., Kansas City 18, Kan., secretary.

Kern County Veterinary Medical Association, the first Thursday of each month. Richard A. Stiern, 17 Niles St., Bakersfield, Calif., secretary.

Keystone Veterinary Medical Association, the Philadelphia County Medical Society Building, 301 S. 21st Street, Philadelphia, Pa., on the fourth Wednesday of each month. Raymond C. Snyder, 39th and Woodland Ave., Philadelphia 4, Pa., secretary.

Kyowva Veterinary Medical Association, the second Thursday of each month in the Hotel Prichard, Huntington, W. Va., at 8:30 p.m. Karl Mayer, 1531 Fourth Ave., Huntington, W. Va., secretary.

Maricopa County Veterinary Association, the second Tuesday of each month. Charles J. Prchal,

(Continued on p. 38)

A MESSAGE OF IMPORTANCE To Veterinarians . . . From a Veterinarian

Mastitis is a herd problem best handled by close co-operation between the herd owner and his veterinarian, yet more than 60 per cent of herd owners now by-pass the veterinarian.

While a veterinarian may not be available to all farmers, most home treatment is caused by the owner's desire to save expense and his preference of other sources of supply.

If this trend toward home treatment continues, it can be a serious threat to the practice of veterinary medicine.

As originators of the penicillin bougie and manufacturers of Mastics for the treatment of mastitis, we have a large stake in veterinary medicine.

Our fixed policy has always been "sold through the veterinarian only," and we hope to be able to continue with this policy. However, we must accept human nature as it is and co-operate to the best of our ability.

Since delay in treating mastitis may cause irreparable loss, most herd owners want effective treatment they can use themselves at once. But the veterinarian is best qualified to instruct herd owners how and when to use medication, also, under what circumstances a veterinarian should be called.

We think the veterinarian has an opportunity to be of service to the large group of herd owners who now by-pass him. We are trying to find ways to co-operate with this group and show them that we as veterinarians have something they need. Our present advertising in farm papers, as shown at the right, is directed along this line.

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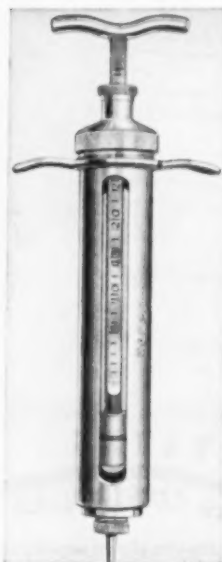
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(COMING MEETINGS — continued from p. 36)

1722 East Almeria Road, Phoenix, Ariz., secretary.

Metropolitan New Jersey Veterinary Medical Association, the third Wednesday night of each month from October through June, at the Hotel Essex House, Newark, N. J. Myron S. Arlein, 2172 Millburn Ave., Maplewood, N. J., secretary.

Michiana Veterinary Medical Association, the second Thursday of each month. Write M. L. Livingston, Hartford, Mich., secretary, for location.

Michigan, Southeastern Veterinary Medical Society. Herman Kiefer Hospital, Detroit, Mich., the second Wednesday of each month from October through May.

Mid-Coast Veterinary Medical Association, the first Thursday of every even month. C. Edward Taylor, 2146 S. Broad St., San Luis Obispo, Calif., secretary.

Milwaukee Veterinary Medical Association. Wisconsin Humane Society, 4150 N. Humbolt Ave., Milwaukee, Wis., the third Tuesday of each month. Kenneth G. Nicholson, 2161 N. Farwell Ave., Milwaukee, Wis., secretary.

Mobile-Baldwin Veterinary Medical Association, the first Tuesday of each month at the Hotel Admiral Simmes, Mobile, Ala. C. Eric Kennedy, Mobile, Ala., secretary.

Monterey Bay Area Veterinary Medical Association, the third Wednesday of each month. C. Edward Taylor, 2146 South Broad St., San Luis Obispo, Calif., secretary.

New Castle County Veterinary Society, the second Wednesday of each month at 9:00 p.m. in the Hotel Rodney, Wilmington, Del. Harold Roberts, Paper Mill Road, Newark R3, Del., secretary.

New York City, Veterinary Medical Association of, the first Wednesday of each month at the New York Academy of Sciences, 2 East 63 St., New York City. C. R. Schroeder, Lederle Laboratories, Inc., Pearl River, N. Y., secretary.

Northern New Jersey Veterinary Association, the fourth Tuesday evening from September through June, at the Casa Mana Restaurant, Cedar Lane, Teaneck, N. J. Robert R. Shomer, 1680 Teaneck Road, N. J., secretary.

Northern San Joaquin Valley Veterinary Medical Association, the fourth Wednesday of

(Continued on p. 40)

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(COMING MEETINGS — continued from p. 38)

- each month. Tom Hagan, Gen. Del., Escalon, Calif., secretary.
- Orange Belt Veterinary Medical Association, the second Monday of each month. Clark Stillinger, 1742 E. Holt Ave., Pomona, Calif., secretary.
- Orange County Veterinary Medical Association, bi-monthly. Donald E. Lind, 2643 N. Main, Santa Ana, Calif., secretary.
- Peninsula Veterinary Medical Association, the third Monday of each month. P. H. Hand, Box 1035, Millbrae, Calif., secretary.
- Piedmont Veterinary Medical Association, the last Friday of each month at 7:00 p.m. in Mull's Motel in Hickory, N. Car. C. N. Copeland, Hickory, N. Car., secretary.
- Pima County (Arizona) Veterinary Medical Association, the third Wednesday of each month, in Tucson. R. W. Adami, 2103 S. 6th Ave., Tucson, Ariz., resident secretary.
- Portland (Oregon) Veterinary Medical Association, the second Tuesday of each month, in the Auditorium of the Upjohn Company. Robert L. Hawley, 1001 N. W. Fourteenth Ave., Portland, Ore., secretary.
- Redwood Empire Veterinary Medical Association, the third Thursday of each month. John McChesney, 40 6th St., Petaluma, Calif., secretary.
- Roanoke-Tar (N. Car.) Veterinary Medical Association, the first Friday of each month, time and place specified monthly. B. H. Brow, Weldon, N. Car., secretary.
- Sacramento Valley Veterinary Medical Association, the second Wednesday of each month. S. M. Foster, 430 College, Woodland, Calif., secretary.
- Saginaw Valley Veterinary Medical Association, the last Wednesday of each month. H. W. Harper, Flint Health Department, Flint, Mich., secretary.
- San Diego County Veterinary Medical Association, the fourth Tuesday of each month. Warren J. Dedrick, 904 S. Lemon, El Cajon, Calif., secretary.
- Santa Barbara-Ventura Counties Veterinary Medical Association, the second Friday of even months. Joe Ridgway, 1784 Thompson Blvd., Ventura, Calif., secretary.
- South Florida Veterinary Society, the third Tuesday of each month, 8:00 p.m., at the Peckway Skeet Club, Robert P. Knowles, 2936 N.W. 17th Ave., Miami, Fla., secretary.
- Southern California Veterinary Medical Association, the third Wednesday of each month. R. W. Sprowl, 11756 San Vicente Blvd., Los Angeles 49, Calif., secretary.
- Tulsa Veterinary Medical Association, the third Thursday of each month, in Director's Parlor

(Continued on p. 42)

How to Get

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Bacteriologists and other authorities agree

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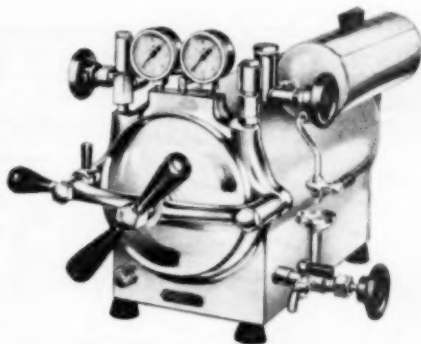
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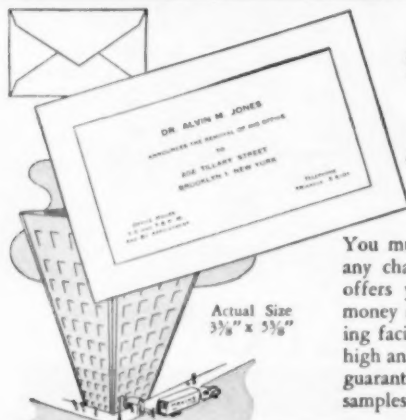
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(COMING MEETINGS -- continued from p. 40)

of the Brookside State Bank, Tulsa, Okla. John Carnes, Muskogee, Okla., secretary.

Foreign Meetings

Second International Congress of Physiology and Pathology of Animal Reproduction and of Artificial Insemination. The Royal Veterinary and Agricultural College, Copenhagen, Denmark, July 7-11, 1952. Ed. Sorensen, the Royal Veterinary and Agricultural College, Bulowsvej 13, Copenhagen V, Denmark, secretary general.

Fifteenth International Veterinary Congress. Stockholm, Sweden, Aug. 9-15, 1953. Dr. L. de Blicke, Soestdijkseweg 113N., Bilthoven, Netherlands, secretary, Permanent Committee. (U. S. Committee: Dr. W. A. Hagan, N. Y. State Veterinary College, Ithaca, N. Y., chairman; Dr. J. G. Hardenbergh, 600 S. Michigan Ave., Chicago 5, Ill., secretary.

An Antibiotic for Trypanosomes.—The first antibiotic (X948) found to be effective against trypanosomiasis has been reported. It cured mice affected with nagana and dourine, varieties of the microorganism, but was too toxic to be of practical value.—*Sci. News Letter*, Feb. 2, 1952.



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Wanted—Veterinarians

WANTED VETERINARIAN—for progressive small animal hospital in eastern New York. Wonderful opportunity for willing individual; excellent starting salary; modern apartment. Must be capable of obtaining New York State license. State qualifications. Address "Box T 9," c/o JOURNAL of the AVMA.

WANTED ASSISTANT—modern Connecticut dog and cat hospital. Three-room furnished apartment available. State qualifications and salary expected in first letter. Address "Box T 5," c/o JOURNAL of the AVMA.

WANTED—assistant for mixed county practice, northern New England. 80 per cent large animals. Must be graduate of AVMA-approved school and willing worker. Address "Box S 14," c/o JOURNAL of the AVMA.

Veterinarian wanted immediately, preferably with California license, for position with small animal practice associated with Pets Unlimited Charity Animal Shelter. Five-room flat adjoining hospital available after April 1, 1952, for married man. Small apartment for single man. Address Dr. Bruno Turkheimer, c/o Pets Unlimited, Inc., 3170 Sacramento St., San Francisco 15, Calif.

WANTED—veterinarian under 35 years to travel in Midwest. Salary open. Address "Box R 19," c/o JOURNAL of the AVMA.

VETERINARIAN WANTED—New, modern hospital with facilities for large and small animals. Northern Illinois area, with very diversified farming and urban area of 20,000. Possible future other than salary. References requested. Address "Box T 18," c/o JOURNAL of the AVMA.

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(Continued on p. 48)

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(CLASSIFIED ADS — continued from p. 441)

WANTED—large animal clinician and instructor in Western veterinary school. Practice and teaching experience preferred. Assistant professor rank. Starting salary \$5,000, with reasonable expectations of advancement. State qualifications and references. Address "Box T 12," c/o JOURNAL of the AVMA.

Wanted—Positions

POSITION WANTED—Graduate of AVMA-approved school desires opportunity in Pennsylvania or southeast. Young family man, experienced general practitioner, best references. Address "Box T 8," c/o JOURNAL of the AVMA.

Position with practitioner in Detroit area desired by June, 1952 graduate of AVMA approved school. Married; veteran; some small animal experience. Address "Box T 7," c/o JOURNAL of the AVMA.

May, 1952 Tuskegee graduate desires assistantship in small animal or general practice. One year pre-graduate small animal experience. Wants experience more than money. Address "Box T 19," c/o JOURNAL of the AVMA.

Veterinary student, 1954 class, in AVMA-approved school, desires summer employment in mixed or small animal practice. Location unlimited. Available after June 7, 1952. Address "Box T 2," c/o JOURNAL of the AVMA.

WANTED POSITION—Texas graduate, licensed, veteran, age 32, Reserve Officer, five years general practice, married, Christian. Some teaching allied fields. Desire change for better future, responsible position, general or specialty. Address "Box T 1," c/o JOURNAL of the AVMA.

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POSITION WANTED—public health, public relations, commercial, regulatory, teaching, assistant in mixed practice, or to lease or buy mixed practice. B.Sc. in Agric. Education and D.V.M. in June, 1952. Nine years' experience in teaching vocational agriculture; five years' experience in rural reporting and photography. Travelled 42 states as state and national officer of Future Farmers of America. Non-smoking, nondrinking, married, Protestant, age 35. Address "Box T 20," c/o JOURNAL of the AVMA.

(Continued on p. 50)

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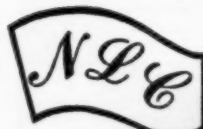
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(CLASSIFIED ADS — continued from p. 48)

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WANTED—position with a small animal practitioner in Great Lakes region. Ontario graduate, 28, married. One year's experience in predominantly large animal practice. Address "Box S 7," c/o JOURNAL of the AVMA.

POSITION WANTED—by graduate of AVMA-approved school leading to eventual partnership or ownership. Experienced in handling all types of farm animals. Prefer East or Midwest. Interested only in position with a future. No assistantship will be considered. Address "Box T 15," c/o JOURNAL of the AVMA.

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(Continued on p. 52)



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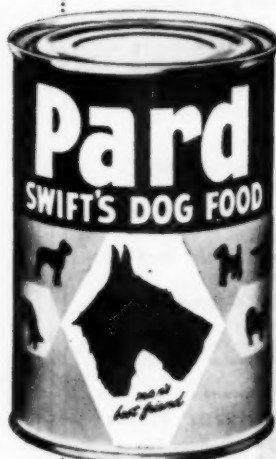
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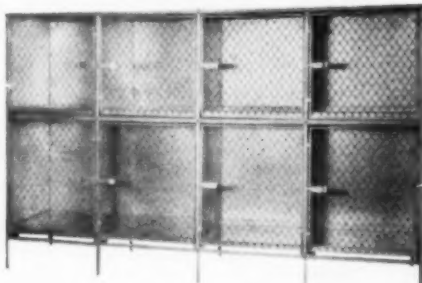
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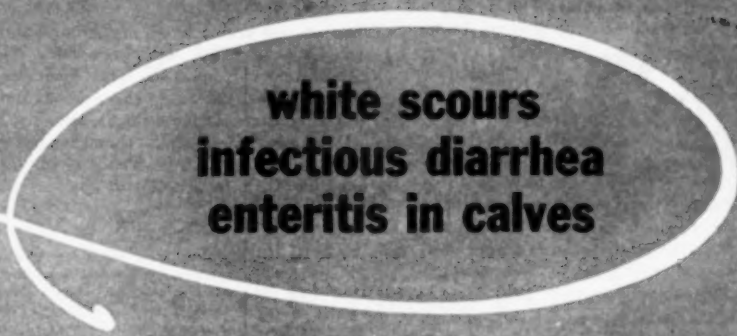
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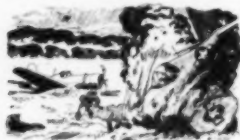
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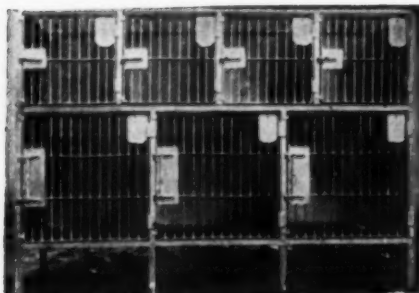
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Confirmation will be sent to you.



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Hotel	Single	Double†	Combination (2 rooms, 1 Bath)	Suite
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3. Ritz-Carlton	6.00-12.00	8.00-14.00	20.00-25.00	25.00-30.00

*The Ambassador will be convention headquarters. Good accommodations are available in a wide range of prices at many hotels besides the three listed here; persons desiring accommodations at hotels other than those listed should write to the Housing Bureau, 16 Central Pier, Atlantic City—stating the type and price wanted. Number of single rooms is limited. All rates subject to 3 per cent municipal tax.

†All double rooms at the Ambassador and Ritz-Carlton have twin beds.

----- Cut Off Here -----

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Accommodations and Rates Per Day Desired:

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Arriving on (date) at a.m. p.m.

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Name City and State

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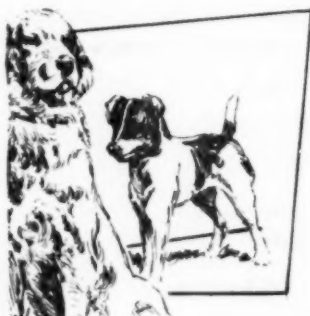
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